Module Catalogue
for the Subject
Geography
as a minor in a Bachelor’s degree programme
(60 ECTS credits)

Examination regulations version: 2015
Responsible: Faculty of Arts, Historical, Philological, Cultural and Geographical Studies
Responsible: Institute of Geography and Geology
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Content and Objectives of the Programme

A minor for a Bachelor's degree, the subject Geography is offered by the Faculty of Arts, Historical, Philological, Cultural and Geographical Studies of JMU in the framework of a programme combining a major and a minor. That programme focuses on the fundamental principles of the disciplines and leads to the degree of Bachelor of Science (BSc).

Studying Geography, students learn the fundamental principles of general and regional geography as well as essential methods in geography. They are equipped with knowledge and skills in the major sub-disciplines of geography and become familiar with the methods of geographical thinking and working. Completing their training and honing their analytical and synthetic thinking skills, students develop the ability to familiarise themselves with, and work in, a wide range of fields and, in particular, to acquire the knowledge and skills needed to study for a consecutive Master's degree. A strong focus is on equipping students with an understanding of fundamental concepts and theories of geography and a high level of proficiency in research methods as well as on the development of typical thought patterns. The main aim is to enable students to systematically analyse and assess as well as to sustainably shape spatial structures and development processes as they affect landscape management, society and the economy.

Graduates who earned a Bachelor of Science degree in Geography

- have specialist knowledge in the fields of geography and geosciences,
- have an overview of the interrelationships within their discipline,
- are able to discuss problems in geography both with their fellow geographers and with persons who are not experts in the discipline.
Module Catalogue for the Subject Geography
minor in a Bachelor’s degree programme, 60 ECTS credits

Abbreviations used

Course types: E = field trip, K = colloquium, O = conversatorium, P = placement/lab course, R = project, S = seminar, T = tutorial, Ü = exercise, V = lecture

Term: SS = summer semester, WS = winter semester

Methods of grading: NUM = numerical grade, B/NB = (not) successfully completed

Regulations: (L)ASPO = general academic and examination regulations (for teaching-degree programmes), FSB = subject-specific provisions, SFB = list of modules

Other: A = thesis, LV = course(s), PL = assessment(s), TN = participants, VL = prerequisite(s)

Conventions

Unless otherwise stated, courses and assessments will be held in German, assessments will be offered every semester and modules are not creditable for bonus.

Notes

Should there be the option to choose between several methods of assessment, the lecturer will agree with the module coordinator on the method of assessment to be used in the current semester by two weeks after the start of the course at the latest and will communicate this in the customary manner.

Should the module comprise more than one graded assessment, all assessments will be equally weighted, unless otherwise stated below.

Should the assessment comprise several individual assessments, successful completion of the module will require successful completion of all individual assessments.

In accordance with

the general regulations governing the degree subject described in this module catalogue:

ASPO2015

associated official publications (FSB (subject-specific provisions)/SFB (list of modules)):

28-Sep-2015 (2015-162)

This module handbook seeks to render, as accurately as possible, the data that is of statutory relevance according to the examination regulations of the degree subject. However, only the FSB (subject-specific provisions) and SFB (list of modules) in their officially published versions shall be legally binding. In the case of doubt, the provisions on, in particular, module assessments specified in the FSB/SFB shall prevail.
Compulsory Courses
(30 ECTS credits)
General Physical Geography
(15 ECTS credits)
<table>
<thead>
<tr>
<th>Module title</th>
<th>Abbreviation</th>
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<tbody>
<tr>
<td>General Physical Geography: Exogenic Dynamics - Geomorphology</td>
<td>04-Geo-PG1Ex-152-m01</td>
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<tr>
<th>Module coordinator</th>
<th>Module offered by</th>
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<tbody>
<tr>
<td>holder of the Professorship of Physical Geography</td>
<td>Institute of Geography and Geology</td>
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<th>Module level</th>
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<tr>
<td>1 semester</td>
<td>undergraduate</td>
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</table>

**Contents**

Erosion and accumulation processes and accumulation results: gravitative, fluvial, glacial and periglacial, Aeolian, marin, littoral, solution; monoprocessual large forms, e.g. endogenous/tectonic forms like volcanoes, break clod, fold mountains or Aeolian "Draas" (huge dunes), deflation (enclosed) basins; - polyprocessual large forms, e.g. glacial series, shape of coastlines, escarpments

**Intended learning outcomes**

Students dispose over the following knowledge: basics of the system earth, i.e. the understanding of processes that are dominating the landscape on the Earth’s surface and which are driven by the geological factors rocks, relief, climate, soil, water, flora and fauna. These are decisive for understanding the structure, function and dynamics of the natural environment and its anthropogenic transformation (the environment that has been shaped from humans by land utilisation, settlements, transport routes etc.).

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

V (3) + T (1)
Module taught in: German and/or 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)

Written examination (approx. 45 minutes)
Language of assessment: German and/or English
creditable for bonus

**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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§ 66 I Nr. 1
<table>
<thead>
<tr>
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<tbody>
<tr>
<td>General Physical Geography: Endogenic Dynamics - Introduction to Geology</td>
<td>04-Geo-PG1En-152-m01</td>
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<tbody>
<tr>
<td>holder of the Professorship of Geodynamics and Geomaterials Research</td>
<td>Institute of Geography and Geology</td>
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</table>

**Contents**

Introduction to "Physical Geography": basics of endogenous dynamics: formation/structure of the Earth, features of important rock forming, ecologically important minerals, volcanism/igneous rocks, plutonism/magma genesis, sediments/sedimentary rocks, metamorphosis; geological structures, ocean floor, plate tectonics, earthquakes, orogenesis, continental crust, distribution of mineral raw materials

**Intended learning outcomes**

The students dispose over basic knowledge of endogenous dynamics

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

V (3) + T (1)

Module taught in: German and/or 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)

written examination (approx. 45 minutes)

Language of assessment: German and/or English

creditable for bonus

**Allocation of places**

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**Additional information**

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

§ 47 I Nr. 1
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## Module Catalogue for the Subject Geography

### minor in a Bachelor's degree programme, 60 ECTS credits

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<thead>
<tr>
<th>Module title</th>
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<tbody>
<tr>
<td>General Physical Geography: Climate System</td>
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### Module coordinator
holder of the Professorship of Climatology

### Module offered by
Institute of Geography and Geology

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### Duration
1 semester

### Module level
undergraduate

### Other prerequisites
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### Contents
The following basics of the Earth's climate system will be presented: terrestrial and celestial mechanical basics; radiation and energy; vertical and horizontal flow dynamics; data sources, characteristics and variability of the Earth's climate system.

### Intended learning outcomes
The students will gain a basic physical understanding of the Earth's climate system.

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

- V (3)

Module taught in: German and/or 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)

- written examination (approx. 45 minutes)

Language of assessment: German and/or 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)

- § 47 I Nr. 1
- § 66 I Nr. 1
General Human Geography
(15 ECTS credits)
Module title
General Human Geography Introduction to the Geography of Cities, Towns and Villages

Abbreviation
04-Geo-HG1S-152-m01

Module coordinator
holder of the Professorship of Geography and Regional Science

Module offered by
Institute of Geography and Geology

ECTS
5

Method of grading
numerical grade

Duration
1 semester

Module level
undergraduate

Other prerequisites
--

Contents
Introduction to “Settlement Geography”, students will deal with the following topic areas: geographical urbanism, Geography of rural settlements, urban system research, urbanisation, regional urban types, theories of urban development, city models

Intended learning outcomes
Students dispose over basic knowledge of Urban Geography as well as Geography of Rural Settlements.

Courses
(type, number of weekly contact hours, language — if other than German)
V (3)
Module taught in: German and/or 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)
written examination (approx. 45 minutes)
Language of assessment: German and/or 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)
§ 47 I Nr. 1
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### Module title

**General Human Geography: Introduction to Economic Geography**

### Abbreviation

04-Geo-HG1W-152-m01

### Module coordinator

holder of the Professorship of Economic Geography

### Module offered by

Institute of Geography and Geology

### ECTS

5

### Method of grading

numerical grade

### Only after succ. compl. of module(s)

--

### Duration

1 semester

### Module level

undergraduate

### Other prerequisites

--

### Contents

Introduction to basic concepts as well as fundamental contents and methods of "Economic Geography". Topics of theoretical "Economic Geography" like the choice of location and system, structure and dynamics of the economic sector, the geographical influence of groups of players and geographical imbalance will be covered. The examination of theories will be made with the help of typical examples and empirical knowledge.

### Intended learning outcomes

Students dispose over knowledge skills of Economic Geography concerning terms, contents and methods.

### Courses

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

V (3)

Module taught in: German and/or 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)

written examination (approx. 45 minutes)

Language of assessment: German and/or 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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<tr>
<td>General Human Geography: Introduction to Social and Population Geography</td>
<td>04-Geo-HG1B-152-m01</td>
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<td>holder of the Professorship of Social Geography</td>
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</table>

**Contents**

Introduction to basic concepts as well as fundamental contents and methods of social and "Population Geography". In particular, topics of geographical "Population Geography" and structure, population movement, geographical society research, Vienna-Munich School of Social Geography, social spatial analysis as well as perception, behaviour and action-theoretical approaches will be covered.

**Intended learning outcomes**

Students acquire a basic understanding of population and socio-geographical issues. They dispose over skills of central population and socio-geographical terms, scientific approaches and theories as well as of acquired possibilities and their implementation on issues of the Applied Population and Social Geography.

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

V (3)

Module taught in: German and/or 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)

written examination (approx. 45 minutes)

Language of assessment: German and/or 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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§ 66 I Nr. 1
Compulsory Electives

(30 ECTS credits)
Cartography

(ECTS credits)
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<td>Cartography and Geoinformation</td>
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<tr>
<td>holder of the Professorship of Geography and Regional Science</td>
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</table>

**Contents**

Introduction to "Cartography" as well as to geodata collection and processing with focus on map projection teaching and map grids, topographical cartography, topical cartography and GIS/geographic information.

**Intended learning outcomes**

Students achieve fundamental skills in the area of Cartography and in the systematic dealing with geoinformation.

**Courses**

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

V (2) + T (2)
Module taught in: German and/or 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)

written examination (approx. 75 minutes)
Language of assessment: German and/or English creditable for bonus

**Allocation of places**

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**Additional information**

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**Referred to in LPO I**

(examination regulations for teaching-degree programmes)

§ 66 I Nr. 2
Physical Geography

(ECTS credits)
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<tbody>
<tr>
<td>Special Problems of Physical Geography 1 (Earth System: Man and Environment)</td>
<td>04-Geo-SPG1-152-m01</td>
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<tr>
<td>holder of the Chair of Soil Geography</td>
<td>Institute of Geography and Geology</td>
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**Contents**

The module focuses the geofactors bedrock, topography, climate, soils, water, and plants and their relevance for landscape forming processes as well as for land-use. Basic geofactors of natural landscapes related to anthropogenic impact (land-use, settlements, infrastructure, etc.) will be discussed.

**Intended learning outcomes**

The students learn synthesis and integration of their knowledge on geofactors. They are able to consider natural and cultural aspects for site-specific and planning assessment.

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

V (2)

Module taught in: German and/or 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)

written examination (approx. 45 minutes)

Language of assessment: German and/or 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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<td>Special Problems of Physical Geography 2 (Earth System: Man and Environment)</td>
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<thead>
<tr>
<th>Contents</th>
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<tbody>
<tr>
<td>The module serves to deepen the skills in &quot;Special Physical Geography&quot;. Selected geofactors and applied problems are in the center of courses.</td>
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<table>
<thead>
<tr>
<th>Intended learning outcomes</th>
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<tr>
<td>The module deepens student's knowledge on selected geofactors and their relevance for applied requests.</td>
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<tr>
<td>presentation (approx. 30 minutes) with related term paper (approx. 20 pages)</td>
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<td>Special Problems of Physical Geography 3 (Earth System: Man and Environment)</td>
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<tbody>
<tr>
<td>1 semester</td>
<td>undergraduate</td>
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</table>

### Contents

This module comprises a large spectrum of special lectures on selected topics of "Physical Geography" and "Geology".

### Intended learning outcomes

The students gain a deeper insight into a selected topic and, hence, get the opportunity of orientation for their Bachelor theses and their further education or profession.

### Courses

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<th>type, number of weekly contact hours, language — if other than German</th>
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Module taught in: German and/or English

### Method of assessment

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Assessment offered: Once a year, winter semester

Language of assessment: German and/or 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)

§ 66 I Nr. 2
Module title
Methods of Physical Geography 1

Abbreviation
04-Geo-MPG1-152-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
undergraduate

Other prerequisites
--

Contents
This module is dedicated to an advanced methodical knowledge of data analysis in "Physical Geography". There are several alternative courses, e.g. dealing with climatological measurements, climate modelling, geophysical methods, pedologic field methods, remote sensing and advanced GIS applications.

Intended learning outcomes
The students improve their methodical skills in terms of cartography, data analysis, statistics, lab techniques, modelling and IT techniques, exemplified by means of scientific projects.

Courses (type, number of weekly contact hours, language — if other than German)
Ü (2)
Module taught in: German and/or 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)
a) written examination (approx. 45 minutes) or b) oral examination of one candidate each (approx. 30 minutes) or c) presentation (approx. 30 minutes) or d) portfolio (approx. 20 pages, including 3 maps, 2 logs) or e) term paper (approx. 20 pages)
Language of assessment: German and/or 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)
§ 66 I Nr. 2
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**Contents**

This module is dedicated to an advanced methodical knowledge of data analysis in "Physical Geography". There are several alternative courses, e.g. dealing with climatological measurements, climate modelling, geophysical methods, pedologic methods, remote sensing and advanced GIS applications.

**Intended learning outcomes**

The students improve their methodical skills in terms of cartography, data analysis, statistics, lab techniques, modelling and IT techniques, exemplified by means of scientific projects.

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

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</table>

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

| a) written examination (approx. 45 minutes) or b) oral examination of one candidate each (approx. 30 minutes) or c) presentation (approx. 30 minutes) or d) portfolio (approx. 20 pages, including 3 maps, 2 logs) or e) term paper (approx. 20 pages) |
| Assessment offered: Once a year, summer semester |
| Language of assessment: German and/or English |

**Allocation of places**

20 places. Should the number of applications exceed the number of available places, places will be allocated according to the number of subject semesters with the individual student's progression through their degree programme being taken into account. Among applicants with the same number of subject semesters, places will be allocated by lot. A waiting list will be maintained and places re-allocated by lot as they become available.

**Additional information**

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

§ 66 I Nr. 2
Module title | Abbreviation
--- | ---
Methods of Physical Geography 3 | 04-Geo-MPG3-152-m01

Module coordinator | Module offered by
holder of the Professorship of Geodynamics and Geomaterials Research | Institute of Geography and Geology

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

Duration | Module level | Other prerequisites
--- | --- | ---
1 semester | undergraduate | --

Contents

Basic observations on geological materials that can already be made in the field and which can lead to a first interpretation of geological processes, which took place, as well as the creation of value of geomaterials. Students will be provided with distinctive features and characteristics of the most important rock-forming and economically relevant minerals by means of chosen visuals. Subsequently, the classification of the most important sedimentary, igneous and metamorphic rock types will be elucidated and practised on the basis of their in the hand-piece identifiable mineral existence and structure. In the following modular section, the understanding of two-dimensional display of three-dimensional display of geological phenomena like the geographical distribution of different rock types or tectonic structures will be developed in form of geological maps and sections as well as simple structural-geological diagrams.

Intended learning outcomes

Students are able to identify the most important mineral types and as far as possible, to outline and interpret the rock samples without analytical tools. Moreover, they are able to interpret geological maps correctly and to show geological field observations in map form, profiles and suitable diagrams.

Courses

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

Ü (2)
Module taught in: German and/or 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)

a) written examination (approx. 45 minutes) or b) oral examination of one candidate each (approx. 30 minutes) or c) presentation (approx. 30 minutes) or d) portfolio (approx. 20 pages, including 3 maps, 2 logs) or e) term paper (approx. 20 pages)

Assessment offered: Once a year, summer semester
Language of assessment: German and/or English

Allocation of places

15 places. Should the number of applications exceed the number of available places, places will be allocated according to the number of subject semesters with the individual student’s progression through their degree programme being taken into account. Among applicants with the same number of subject semesters, places will be allocated by lot. A waiting list will be maintained and places re-allocated by lot as they become available.

Additional information

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

§ 66 I Nr. 2
Module title | Abbreviation
---|---
Natural landscape analysis | 04-Geo-NRA-152-m01

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Contents

The module aims to deepen basic knowledge by means of selected landscapes. Theme category groups related to "Physical Geography" are generated by exemplary landscape units. The teaching approach is realised by the application of maps, digital elevation models, geodata, scientific publications as well as by specific problems.

Intended learning outcomes

Students learn to apply basic physical-geographic knowledge in landscapes. They gain competences in the practice of geographic working tools.

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

S (2)
Module taught in: German and/or 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)

- a) written examination (approx. 45 minutes) or b) oral examination of one candidate each (approx. 30 minutes) or c) presentation (approx. 30 minutes) or d) portfolio (approx. 20 pages, including 3 maps, 2 logs) or e) term paper (approx. 20 pages)

Language of assessment: German and/or 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)

§ 66 I Nr. 2
Human Geography

(ECTS credits)
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### Contents

This module deals with and consolidates chosen issues of "Theoretical and Applied Human Geography" from a sub-area of "Human Geography". Presentation of epistemological concepts, contents and methods as well as their significance for scientific works.

### Intended learning outcomes

Students learn technical theories and achieve solid skills in a sub-area of Human Geography and its applied implementation. They are able to issue a seminar paper on the basis of independent literary work as well as to present the seminar papers in a presentation, which will be held freely.

### Courses

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### Method of assessment

Presentation (approx. 30 minutes) with related term paper (approx. 20 pages)

Language of assessment: German and/or 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)

§ 66 I Nr. 1
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**Module coordinator**  
holder of the Professorship of Social Geography  
Module offered by  
Institute of Geography and Geology

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**Contents**  
This module deals with chosen issues of "Theoretical and Applied Human Geography" from a sub-area of "Human Geography" (other sub-area as in the module "Special Human Geography 1"). Presentation of epistemological concepts, contents and methods as well as their significance for scientific works.

**Intended learning outcomes**  
Students learn technical theories and achieve solid skills in a sub-area of Human Geography and its applied implementation. They are able to issue a seminar paper on the basis of independent literary work as well as to present the seminar papers in a presentation, which will be held freely.

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

S (2)  
Module taught in: German and/or 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)

presentation (approx. 30 minutes) with related term paper (approx. 20 pages)  
Language of assessment: German and/or 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)  
§ 66 I Nr. 2
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**Contents**

Deepening lecture concerning a sub-area of "Human Geography" with presentation of chosen examples of human-geographical research and working practice and consolidation of chosen and research-related topic areas of "Human Geography".

**Intended learning outcomes**

Students learn technical theories and achieve advanced skills in a sub-area of Human Geography and its applied implementation.

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

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Module taught in: German and/or 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)

written examination (approx. 45 minutes)

Assessment offered: Once a year, summer semester

Language of assessment: German and/or 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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**Contents**

No information on contents available.

**Intended learning outcomes**

No information on intended learning outcomes available.

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

S (2)

Module taught in: German and/or 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)

a) portfolio (approx. 20 pages, including 2 maps, 5 logs) or b) written examination (approx. 45 minutes) or c) presentation (approx. 30 minutes) with related term paper (approx. 20 pages)

Language of assessment: German and/or 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)

§ 66 I Nr. 2
### Module title
Qualitative methods in Human Geography

### Abbreviation
04-Geo-QualM-152-m01

### Module coordinator
holder of the Professorship of Social Geography

### Module offered by
Institute of Geography and Geology

### ECTS
5

### Method of grading
numerical grade

### Only after succ. compl. of module(s)
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### Duration
1 semester

### Module level
undergraduate

### Other prerequisites
--

### Contents
Methodological basics of qualitative social research (phenomenology, hermeneutics, constructivism, grounded theory). Introduction to methods of qualitative social research (ethnography, discussions, interviews, observations, content analysis etc.). Presentation of single qualitative methods, which are used in the regional development and management.

### Intended learning outcomes
Students are able to conceptualise and process certain topics with the help of qualitative methods. Students have knowledge of methodological principles of the qualitative social research and thus, are able to choose suitable methods, to use them and reflect them critically. They are aware of their individual role as a researcher in the field and, moreover, are able to reflect and integrate this into the research practice constructively. Students gain further skills concerning the use and evaluation of texts, writing skills, creative techniques and communication skills.

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

**Ü (2)**

Module taught in: German and/or 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)

a) portfolio (approx. 30 pages, including 2 maps, 5 logs) or b) project (approx. 20 minutes) or c) presentation (approx. 30 minutes) with related term paper (approx. 20 pages)

Language of assessment: German and/or 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)

§ 66 I Nr. 2
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<td>Quantitative methods in Human Geography</td>
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</table>

**Contents**

This module includes processes of quantitative area studies, multivariate statistical processes, processes of geographical modelling. Presentation and discussion of methods. Application of methods based on typical examples.

**Intended learning outcomes**

Students achieve the following skills: The application of procedural issues to regional-analytical and quantitative methods, the evaluation and assessment of the application and efficiency of processes.

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

Ü (2)  
Module taught in: German and/or 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)

a) presentation (approx. 30 minutes) with related term paper (approx. 20 pages) or b) portfolio (approx. 30 pages, including 6 logs)  
Assessment offered: Once a year, summer semester  
Language of assessment: German and/or English  
creditable for bonus

**Allocation of places**

20 places. Should the number of applications exceed the number of available places, places will be allocated according to the number of subject semesters with the individual student’s progression through their degree programme being taken into account. Among applicants with the same number of subject semesters, places will be allocated by lot. A waiting list will be maintained and places re-allocated by lot as they become available.

**Additional information**

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

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Regional Geography

(ECTS credits)
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</table>

**Contents**

Issues of "General Geography" in terms of European subspaces. This can be individual states as well as distinctive European subspaces due to their lay (e.g. Northern Europe, Alpine countries).

**Intended learning outcomes**

Students dispose over the following skills: Students will apply general-geographical skills to regional-related issues, particularly the partial steps: 1. Differentiation and characterisation of a region, 2. Emphasis on specific problems and spatial interactions as well as 3. Synthesis and demonstration of perspectives/problem solutions with thematic emphasis.

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

V (2)

Module taught in: German and/or 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)

a) written examination (approx. 45 minutes) or b) oral examination of one candidate each (approx. 15 minutes) or c) oral examination in groups of up to 3 candidates (approx. 15 minutes per candidate)

Language of assessment: German and/or 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)

§ 47 I Nr. 2
§ 66 I Nr. 1
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<table>
<thead>
<tr>
<th>ECTS</th>
<th>Method of grading</th>
<th>Only after succ. compl. of module(s)</th>
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<tbody>
<tr>
<td>5</td>
<td>numerical grade</td>
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<table>
<thead>
<tr>
<th>Duration</th>
<th>Module level</th>
<th>Other prerequisites</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 semester</td>
<td>undergraduate</td>
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</tbody>
</table>

### Contents

Issues of "General Geography" in terms of global subspaces. This can be individual continents as well as distinctive subspaces due to their lay like North America or the Arabian Peninsula.

### Intended learning outcomes

Students dispose over the following skills: Students will apply general-geographical skills to regional-related issues, particularly the partial steps: 1. Differentiation and characterisation of a region, 2. Emphasis on specific problems and spatial interactions as well as 3. Synthesis and demonstration of perspectives/problem solutions with thematic emphasis.

### Courses

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

<table>
<thead>
<tr>
<th>Type</th>
<th>Number of weekly contact hours</th>
<th>Language</th>
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<tbody>
<tr>
<td>V</td>
<td>(2)</td>
<td>German and/or English</td>
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</tbody>
</table>

### Method of assessment

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

a) written examination (approx. 45 minutes) or b) oral examination of one candidate each (approx. 15 minutes) or c) oral examination in groups of up to 3 candidates (approx. 15 minutes per candidate)

Language of assessment: German and/or English

### Allocation of places

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### Additional information

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### Referred to in LPO 1 (examination regulations for teaching-degree programmes)

§ 47 I Nr. 2
§ 66 I Nr. 1
## Module title

Regional Geography - Seminar 1

| Abbreviation | 04-Geo-RG-S1-152-m01 |

## Module coordinator

holder of the Professorship of Physical Geography

## Module offered by

Institute of Geography and Geology

## ECTS

5

## Method of grading

numerical grade

Only after succ. compl. of module(s)

## Duration

1 semester

undergraduate

## Other prerequisites

--

## Contents

Issues of "General Geography" in terms of global subspaces. This can be individual states as well as distinctive European subspaces due to their lay (e.g. North America, Alpine countries) or individual continents or distinctive subspaces due to their lay like North America or the Arabian Peninsula.

## Intended learning outcomes

Students dispose over the following skills: Students will apply general-geographical skills to regional-related issues, particularly the partial steps: 1. Differentiation and characterisation of a region, 2. Emphasis on specific problems and spatial interactions as well as 3. Synthesis and demonstration of perspectives/problem solutions with thematic emphasis.

## Courses

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Module taught in: German and/or English

## Method of assessment

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<tbody>
<tr>
<td>presentation (approx. 30 minutes) with related term paper (approx. 20 pages)</td>
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</table>

Language of assessment: German and/or English

## Allocation of places

20 places. Should the number of applications exceed the number of available places, places will be allocated according to the number of subject semesters with the individual student's progression through their degree programme being taken into account. Among applicants with the same number of subject semesters, places will be allocated by lot. A waiting list will be maintained and places re-allocated by lot as they become available.

## Additional information

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## Referred to in LPO I

(examination regulations for teaching-degree programmes)

§ 66 I Nr. 1
<table>
<thead>
<tr>
<th>Module title</th>
<th>Abbreviation</th>
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</thead>
<tbody>
<tr>
<td>Regional Geography - Seminar 2</td>
<td>04-Geo-RG-S2-152-m01</td>
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<tbody>
<tr>
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### Contents

Issues of "General Geography" in terms of global subspaces. This can be individual states as well as distinctive European subspaces due to their lay (e.g. North America, Alpine countries) or individual continents or distinctive subspaces due to their lay like North America or the Arabian Peninsula.

### Intended learning outcomes

Students dispose over the following skills: Students will apply general-geographical skills to regional-related issues, particularly the partial steps: 1. Differentiation and characterisation of a region, 2. Emphasis on specific problems and spatial interactions as well as 3. Synthesis and demonstration of perspectives/problem solutions with thematic emphasis.

### Courses

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Module taught in: German and/or English

### Method of assessment

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<tbody>
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Assessment offered: Once a year, summer semester

Language of assessment: German and/or English

### Allocation of places

20 places. Should the number of applications exceed the number of available places, places will be allocated according to the number of subject semesters with the individual student's progression through their degree programme being taken into account. Among applicants with the same number of subject semesters, places will be allocated by lot. A waiting list will be maintained and places re-allocated by lot as they become available.

### Additional information

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### Referred to in LPO I

(examination regulations for teaching-degree programmes)

§ 66 I Nr. 2
Remote Sensing
(ECTS credits)
**Module title** | **Abbreviation**
--- | ---
Introduction to Geographical Remote Sensing | 04-Geo-FERNE-152-m01

**Module coordinator** | **Module offered by**
--- | ---
holder of the Professorship of Remote Sensing | Institute of Geography and Geology

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**Contents**

The lecture gives an overview of the principles of remote sensing, that are: theoretical basics, history of remote sensing / physical principles (energy and radiation, interactions radiation - atmosphere, interactions radiation - surfaces, objects under investigation: soils, vegetation, water) / thermal remote sensing: radiation laws, radiant temperature, emissivity / detectors: characterisation of remote sensing data, platforms and sensors (passive and active systems, e.g. hyperspectral and LiDAR) / radar remote sensing / radar interferometry / basics for remote sensing parameters (land, atmosphere, oceans).

**Intended learning outcomes**

The students describe basics of earth observation. They outline and explain the radiation path through the atmosphere to the object under investigation and back to the sensor. They emphasise essential characteristics of remote sensing data, sensors and platforms.

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

V (2) + T (2)
Module taught in: German and/or 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)

written examination (approx. 45 minutes)
Language of assessment: German and/or English
creditable for bonus

**Allocation of places**

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**Additional information**

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

§ 66 I Nr. 2
### Module title
Applications of Remote Sensing in Geography

### Abbreviation
04-Geo-FERNA-152-m01

### Module coordinator
holder of the Professorship of Remote Sensing

### Module offered by
Institute of Geography and Geology

### ECTS
5

### Method of grading
numerical grade

### Only after succ. compl. of module(s)
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### Duration
1 semester

### Module level
undergraduate

### Other prerequisites
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### Contents
The lecture imparts basic knowledge about the analysis of remote sensing data for geographical questions. First, fundamental understanding of remotely sensed data as geoinformation and later geoinformation in general (geographical data, metadata, spatial overlaying of geodata, geographical information systems) is given. Following topics are analogue, visual image interpretation, digital image processing (calibration, transformation, filter) and atmospheric correction. A focus lies on the digital remote sensing based mapping, i.e. spectral analysis, classification and change detection. Furthermore, basics in modelling of remote sensing parameters is conveyed.

### Intended learning outcomes
The students explain applications of earth observation and remote sensing. They explain geographical data and reflect their essential characteristics. They summarise fundamental aspects of (digital) image processing and assess different methodological approaches for the evaluation of remote sensing data for geographical questions.

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

V (2) + T (2)

Module taught in: German and/or 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)

written examination (approx. 45 minutes)

Language of assessment: German and/or English
creditable for bonus

### 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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