Subdivided Module Catalogue for the Subject Geography (Focus Physical Geography) as a major in a Bachelor’s degree programme with the degree "Bachelor of Science" (120 ECTS credits)

Examination regulations version: 2015
Responsible: Faculty of Arts, Historical, Philological, Cultural and Geographical Studies
Responsible: Institute of Geography and Geology
Course of Studies - Contents and Objectives

The program of studies is intended to provide a solid background in the most important subfields of physical geography and familiarize the student with the techniques of geographical reasoning and working. Their education and training towards analytical and synthetic thinking is to provide the future geographers with the skills to adapt to new tasks and to gain and develop the basic knowledge required for achieving their Bachelor- and Master-Degrees. Therefore, the main focus is on the comprehension of the fundamental geographical terms and theories as well as on a sound knowledge of techniques and the development of typical thought processes. The primary educational objective of the undergraduate studies towards a Bachelors degree with professional qualifications is thus the acquisition of skills to purposefully analyze, assess and effectively co-design the development of current land management with regard to its effect on society and economy.

Specifically, the following student outcomes (knowledge, skills and competencies) are achieved:

- Expert knowledge about physical geography and spatial science.
- Overview of the relationship of their own disciplines
- Ability to identify, formulate and – supported by personally researched literature - solve subject-specific problems and tasks.
- Processing of analysis, synthesis and development tasks with particular reference to scientific, technical, social, ecological, economic and social constraints and standards by means of appropriate methods and the application of adequate working techniques (particularly regarding EDP).
- Preparation for flexible employment in various professional areas through methodical and subject-specific skills.
- Capability to discuss geographical contents and problems with peers and colleagues and to explain them to a more diverse audience.
- Ability to work independently as well as cooperatively, to effectively organize and carry out projects and to develop into and assume managerial responsibilities.
- Preparation for their start into professional (industrial or scientific) life by sufficient practical experience and vocational training.
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 (2015-164)

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.
Subdivided Module Catalogue for the Subject Geography (Focus Physical Geography) major in a Bachelor's degree programme, 120 ECTS credits

### The subject is divided into

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Module title</th>
<th>ECTS credits</th>
<th>Method of grading</th>
<th>page</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Compulsory Courses (55 ECTS credits)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Geography</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>04-Geo-PG1Ex-152-m01</td>
<td>General Physical Geography: Exogenic Dynamics - Geomorphology</td>
<td>5</td>
<td>NUM</td>
<td>6</td>
</tr>
<tr>
<td>04-Geo-PG1En-152-m01</td>
<td>General Physical Geography: Endogenic Dynamics - Introduction to Geology</td>
<td>5</td>
<td>NUM</td>
<td>7</td>
</tr>
<tr>
<td>04-Geo-PG1Kl-152-m01</td>
<td>General Physical Geography: Climate System</td>
<td>5</td>
<td>NUM</td>
<td>8</td>
</tr>
<tr>
<td><strong>Human Geography</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>04-Geo-HG1S-152-m01</td>
<td>General Human Geography Introduction to the Geography of Cities, Towns and Villages</td>
<td>5</td>
<td>NUM</td>
<td>9</td>
</tr>
<tr>
<td>04-Geo-HG1W-152-m01</td>
<td>General Human Geography: Introduction to Economic Geography</td>
<td>5</td>
<td>NUM</td>
<td>10</td>
</tr>
<tr>
<td>04-Geo-HG1B-152-m01</td>
<td>General Human Geography: Introduction to Social and Population Geography</td>
<td>5</td>
<td>NUM</td>
<td>11</td>
</tr>
<tr>
<td><strong>Spezielle Physische Geographie</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>04-Geo-SPG1-152-m01</td>
<td>Special Problems of Physical Geography 1 (Earth System: Man and Environment)</td>
<td>5</td>
<td>NUM</td>
<td>18</td>
</tr>
<tr>
<td><strong>Working methods of Physical Geography</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>04-Geo-MPG1-152-m01</td>
<td>Methods of Physical Geography 1</td>
<td>5</td>
<td>NUM</td>
<td>21</td>
</tr>
<tr>
<td>04-Geo-NRA-152-m01</td>
<td>Natural landscape analysis</td>
<td>5</td>
<td>NUM</td>
<td>24</td>
</tr>
<tr>
<td><strong>Statistics and Cartography 1</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>04-Geo-STATU-152-m01</td>
<td>Statistics: Fundamentals of Descriptive and Inferential Statistics</td>
<td>5</td>
<td>NUM</td>
<td>12</td>
</tr>
<tr>
<td>04-Geo-KART-152-m01</td>
<td>Cartography and Geoinformation</td>
<td>5</td>
<td>NUM</td>
<td>14</td>
</tr>
<tr>
<td><strong>Compulsory Electives (35 ECTS credits)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Students may select any of the modules from the module groups below.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Statistics and Cartography 2</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>04-Geo-STATM-152-m01</td>
<td>Statistics: Special and Multivariate Procedures</td>
<td>5</td>
<td>NUM</td>
<td>13</td>
</tr>
<tr>
<td>04-Geo-GIS-152-m01</td>
<td>Geographical Information Systems (GIS)</td>
<td>5</td>
<td>NUM</td>
<td>15</td>
</tr>
<tr>
<td><strong>Special and Applied Physical Geography</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>04-Geo-SPG2-152-m01</td>
<td>Special Problems of Physical Geography 2 (Earth System: Man and Environment)</td>
<td>5</td>
<td>NUM</td>
<td>19</td>
</tr>
<tr>
<td>04-Geo-SPG3-152-m01</td>
<td>Special Problems of Physical Geography 3 (Earth System: Man and Environment)</td>
<td>5</td>
<td>NUM</td>
<td>20</td>
</tr>
<tr>
<td>04-Geo-PPG-152-m01</td>
<td>Applied physical geography</td>
<td>10</td>
<td>NUM</td>
<td>37</td>
</tr>
<tr>
<td><strong>Working methods of Physical Geography</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>04-Geo-MPG2-152-m01</td>
<td>Methods of Physical Geography 2</td>
<td>5</td>
<td>NUM</td>
<td>22</td>
</tr>
<tr>
<td>04-Geo-MPG3-152-m01</td>
<td>Methods of Physical Geography 3</td>
<td>5</td>
<td>NUM</td>
<td>23</td>
</tr>
<tr>
<td><strong>Remote Sensing</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>04-Geo-FERNE-152-m01</td>
<td>Introduction to Geographical Remote Sensing</td>
<td>5</td>
<td>NUM</td>
<td>16</td>
</tr>
<tr>
<td>04-Geo-FERNA-152-m01</td>
<td>Applications of Remote Sensing in Geography</td>
<td>5</td>
<td>NUM</td>
<td>17</td>
</tr>
<tr>
<td><strong>Regional Geography</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>04-Geo-RG-V1-152-m01</td>
<td>Regional Geography - Lecture course 1</td>
<td>5</td>
<td>NUM</td>
<td>29</td>
</tr>
</tbody>
</table>
### Subdivided Module Catalogue for the Subject Geography (Focus Physical Geography)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
<th>Type</th>
<th>Credit Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>04-Geo-RG-V2-152-m01</td>
<td>Regional Geography - Lecture course 2</td>
<td>5</td>
<td>NUM</td>
<td>30</td>
</tr>
<tr>
<td>04-Geo-RG-S1-152-m01</td>
<td>Regional Geography - Seminar 1</td>
<td>5</td>
<td>NUM</td>
<td>31</td>
</tr>
<tr>
<td>04-Geo-RG-S2-152-m01</td>
<td>Regional Geography - Seminar 2</td>
<td>5</td>
<td>NUM</td>
<td>32</td>
</tr>
</tbody>
</table>

#### Human Geography

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
<th>Type</th>
<th>Credit Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>04-Geo-RPI-152-m01</td>
<td>Spatial Planning and Information</td>
<td>5</td>
<td>NUM</td>
<td>28</td>
</tr>
<tr>
<td>04-Geo-SHG1-152-m01</td>
<td>Special Issues of Human Geography 1</td>
<td>5</td>
<td>NUM</td>
<td>25</td>
</tr>
<tr>
<td>04-Geo-SHG2-152-m01</td>
<td>Special Issues of Human Geography 2</td>
<td>5</td>
<td>NUM</td>
<td>26</td>
</tr>
<tr>
<td>04-Geo-SHG3-152-m01</td>
<td>Special Issues of Human Geography 3</td>
<td>5</td>
<td>NUM</td>
<td>27</td>
</tr>
</tbody>
</table>

#### Key Skills Area (20 ECTS credits)

### General Key Skills (5 ECTS credits)

Students must take modules offered as part of the pool of general transferable skills (ASQ) of JMU.

### Subject-specific Key Skills (15 ECTS credits)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
<th>Type</th>
<th>Credit Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>04-Geo-WAG-152-m01</td>
<td>Scientific Writing and Presentation Skills in Earth Sciences</td>
<td>5</td>
<td>B/NB</td>
<td>33</td>
</tr>
<tr>
<td>04-Geo-PRAK1-152-m01</td>
<td>Job-related Practical Experience 1</td>
<td>5</td>
<td>B/NB</td>
<td>34</td>
</tr>
<tr>
<td>04-Geo-PRAK2-152-m01</td>
<td>Job-related Practical Experience 2</td>
<td>5</td>
<td>B/NB</td>
<td>35</td>
</tr>
</tbody>
</table>

#### Thesis (10 ECTS credits)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
<th>Type</th>
<th>Credit Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>04-Geo-AA-152-m01</td>
<td>Bachelor Thesis Geography</td>
<td>10</td>
<td>NUM</td>
<td>36</td>
</tr>
</tbody>
</table>
Module title | General Physical Geography: Exogenic Dynamics - Geomorphology

Abbreviation | 04-Geo-PG1Ex-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

Module level | undergraduate

Other prerequisites | --

## 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 can be chosen to earn a bonus)

written examination (approx. 45 minutes)

Language of assessment: German and/or English

creditable for bonus

## Allocation of places

--

## Additional information

--

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

§ 47 I Nr. 1

§ 66 I Nr. 1
<table>
<thead>
<tr>
<th>Module title</th>
<th>Abbreviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Physical Geography: Endogenic Dynamics - Introduction to Geology</td>
<td>04-Geo-PG1En-152-m01</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Module coordinator</th>
<th>Module offered by</th>
</tr>
</thead>
<tbody>
<tr>
<td>holder of the Professorship of Geodynamics and Geomaterials Research</td>
<td>Institute of Geography and Geology</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ECTS</th>
<th>Method of grading</th>
<th>Only after succ. compl. of module(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>numerical grade</td>
<td>--</td>
</tr>
</tbody>
</table>

<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>
<td>--</td>
</tr>
</tbody>
</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 can be chosen to earn a bonus)

written examination (approx. 45 minutes)

Language of assessment: German and/or English

creditable for bonus

### Allocation of places

--

### Additional information

--

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

§ 47 I Nr. 1

§ 66 I Nr. 1
Module title: General Physical Geography: Climate System
Abbreviation: 04-Geo-PG1Kl-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
Only after succ. compl. of module(s)

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

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 can be chosen to earn a bonus):
written examination (approx. 45 minutes)
Language of assessment: German and/or English

Allocation of places:
--

Additional information:
--

Referred to in LPO I (examination regulations for teaching-degree programmes):
§ 47 I Nr. 1
§ 66 I Nr. 1
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
Only after succ. compl. of module(s): --

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 can be chosen to earn a bonus)
written examination (approx. 45 minutes)
Language of assessment: German and/or English

Allocation of places:
--

Additional information:
--

Referred to in LPO I (examination regulations for teaching-degree programmes)
§ 47 I Nr. 1
§ 66 I Nr. 1
<table>
<thead>
<tr>
<th>Module title</th>
<th>Subdivided Module Catalogue for the Subject Geography (Focus Physical Geography) major in a Bachelor's degree programme, 120 ECTS credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Human Geography: Introduction to Economic Geography</td>
<td>04-Geo-HG1W-152-m01</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Module coordinator</th>
<th>holder of the Professorship of Economic Geography</th>
</tr>
</thead>
<tbody>
<tr>
<td>Module offered by</td>
<td>Institute of Geography and Geology</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ECTS</th>
<th>Method of grading</th>
<th>Only after succ. compl. of module(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>numerical grade</td>
<td>--</td>
</tr>
</tbody>
</table>

<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>
<td>--</td>
</tr>
</tbody>
</table>

### 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 can be chosen to earn a bonus)

Written examination (approx. 45 minutes)

Language of assessment: German and/or English

### Allocation of places

--

### Additional information

--

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

§ 47 I Nr. 1

§ 66 I Nr. 1
<table>
<thead>
<tr>
<th>Module title</th>
<th>Abbreviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Human Geography: Introduction to Social and Population Geography</td>
<td>04-Geo-HG1B-152-m01</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Module coordinator</th>
<th>Module offered by</th>
</tr>
</thead>
<tbody>
<tr>
<td>holder of the Professorship of Social Geography</td>
<td>Institute of Geography and Geology</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ECTS</th>
<th>Method of grading</th>
<th>Only after succ. compl. of module(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>numerical grade</td>
<td>--</td>
</tr>
</tbody>
</table>

<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>
<td>--</td>
</tr>
</tbody>
</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 can be chosen to earn a bonus)

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

**Allocation of places**  
--

**Additional information**  
--

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

§ 47 I Nr. 1  
§ 66 I Nr. 1
<table>
<thead>
<tr>
<th>Module title</th>
<th>Abbreviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Statistics: Fundamentals of Descriptive and Inferential Statistics</td>
<td>04-Geo-STATU-152-m01</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Module coordinator</th>
<th>Module offered by</th>
</tr>
</thead>
<tbody>
<tr>
<td>holder of the Professorship of Climatology</td>
<td>Institute of Geography and Geology</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ECTS</th>
<th>Method of grading</th>
<th>Only after succ. compl. of module(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>numerical grade</td>
<td>--</td>
</tr>
</tbody>
</table>

<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>
<td>--</td>
</tr>
</tbody>
</table>

**Contents**

The basics of univariate statistics will be presented, including descriptive statistics, test statistics and measures of correlation.

**Intended learning outcomes**

The students achieve methodical skills in terms of univariate statistical methods and data analysis.

**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 can be chosen to earn a bonus)

written examination (approx. 60 minutes)

Language of assessment: German and/or English

**Allocation of places**

--

**Additional information**

--

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

--
### Module title
Statistics: Special and Multivariate Procedures

### Abbreviation
04-Geo-STATM-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

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

### Duration
1 semester

### Module level
undergraduate

### Other prerequisites
--

### Contents
The basics of multivariate statistics will be presented, including multiple regression, spectral analysis and eigenvalue techniques.

### Intended learning outcomes
The students achieve methodical skills in terms of multivariate statistical methods and data analysis.

### 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 can be chosen to earn a bonus)
written examination (approx. 60 minutes)
Language of assessment: German and/or English

### Allocation of places
--

### Additional information
--

### Referred to in LPO I (examination regulations for teaching-degree programmes)
--
### Module title
Cartography and Geoinformation

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>04-Geo-KART-152-m01</th>
</tr>
</thead>
</table>

### 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

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

### Duration
1 semester

### Module level
undergraduate

### Other prerequisites
--

### 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 can be chosen to earn a bonus)
written examination (approx. 75 minutes)
Language of assessment: German and/or English
creditable for bonus

### Allocation of places
--

### Additional information
--

### Referred to in LPO I (examination regulations for teaching-degree programmes)
§ 66 I Nr. 2
Module title | Geographical Information Systems (GIS)  
---|---  
Abbreviation | 04-Geo-GIS-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  
Module level | undergraduate  
Other prerequisites | --  
Contents  
Introduction to GIS; application examples from Geography, earth and environmental sciences; introduction to GIS ArcGIS; data models to GIS: factual and geometrical data (vector and grid data); geometrical, topological and topical data modelling; data administration with ArcGIS (ArcCatalog); conception and structure of a GIS project (ArcGIS); plain principle, meta data, data format, attribute data; relational data model; software components of ArcGIS (ArcMap, ArcToolbox, ArcInfo Workstation); data acquisition and preparation of geometrical and factual data (digitisation, measurement; administration of geometrical and factual data (introduction to structure of a geodata base); geographical analysis of geodata (linkage, intersection, topical and geographical queries, geographical interpolation, terrain analysis from digital elevation data); interpretation, visualisation and result presentation of geodata (signatures, diagrams and map design, topical maps)  
Intended learning outcomes  
Students achieve knowledge of the type and development, management, processing and presenting of geographical data. They acquire skills in dealing with GIS and in the organisation of GIS projects as well as in the processing and interpretation of spatial analysis of GIS (GIS software).  
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 can be chosen to earn a bonus)  
portfolio (approx. 20 pages, including 3 maps, 2 logs)  
Language of assessment: German and/or English  
Allocation of places | --  
Additional information | --  
Referred to in LPO I (examination regulations for teaching-degree programmes) | --
**Module title**
Introduction to Geographical Remote Sensing

**Abbreviation**
04-Geo-FERNE-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

**Duration**
1 semester

**Module level**
undergraduate

**Other prerequisites**
--

<table>
<thead>
<tr>
<th>Contents</th>
</tr>
</thead>
<tbody>
<tr>
<td>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).</td>
</tr>
</tbody>
</table>

**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 can be chosen to earn a bonus)

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

**Allocation of places**
--

**Additional information**
--

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

§ 66 I Nr. 2
<table>
<thead>
<tr>
<th>Module title</th>
<th>Abbreviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Applications of Remote Sensing in Geography</td>
<td>04-Geo-FERNA-152-m01</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Module coordinator</th>
<th>Module offered by</th>
</tr>
</thead>
<tbody>
<tr>
<td>holder of the Professorship of Remote Sensing</td>
<td>Institute of Geography and Geology</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ECTS</th>
<th>Method of grading</th>
<th>Only after succ. compl. of module(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>numerical grade</td>
<td>--</td>
</tr>
</tbody>
</table>

<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>
<td>--</td>
</tr>
</tbody>
</table>

**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 can be chosen to earn a bonus)

written examination (approx. 45 minutes)

Language of assessment: German and/or English

creditable for bonus

**Allocation of places**

--

**Additional information**

--

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

--
### Special Problems of Physical Geography 1 (Earth System: Man and Environment)

**Module title**
Special Problems of Physical Geography 1 (Earth System: Man and Environment)

**Abbreviation**
04-Geo-SPG1-152-m01

**Module coordinator**
holder of the Chair of Soil Geography

**Module offered by**
Institute of Geography and Geology

<table>
<thead>
<tr>
<th>ECTS</th>
<th>Method of grading</th>
<th>Only after succ. compl. of module(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>numerical grade</td>
<td>--</td>
</tr>
</tbody>
</table>

**Duration**
1 semester

**Module level**
undergraduate

**Contents**
The module focuses on geofactors such as 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 can be chosen to earn a bonus)

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

**Allocation of places**
--

**Additional information**
--

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

§ 66 I Nr. 2
<table>
<thead>
<tr>
<th>Module title</th>
<th>Abbreviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Special Problems of Physical Geography 2 (Earth System: Man and Environment)</td>
<td>04-Geo-SPG2-152-m01</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Module coordinator</th>
<th>Module offered by</th>
</tr>
</thead>
<tbody>
<tr>
<td>holder of the Chair of Soil Geography</td>
<td>Institute of Geography and Geology</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ECTS</th>
<th>Method of grading</th>
<th>Only after succ. compl. of module(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>numerical grade</td>
<td>--</td>
</tr>
</tbody>
</table>

<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>
<td>--</td>
</tr>
</tbody>
</table>

**Contents**

The module serves to deepen the skills in "Special Physical Geography". Selected geofactors and applied problems are in the center of courses.

**Intended learning outcomes**

The module deepens student's knowledge on selected geofactors and their relevance for applied requests.

**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 can be chosen to earn a bonus)

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

Language of assessment: German and/or English

**Allocation of places**

--

**Additional information**

--

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

§ 66 I Nr. 2
<table>
<thead>
<tr>
<th>Module title</th>
<th>Abbreviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Special Problems of Physical Geography 3 (Earth System: Man and Environment)</td>
<td>04-Geo-SPG3-152-m01</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Module coordinator</th>
<th>Module offered by</th>
</tr>
</thead>
<tbody>
<tr>
<td>holder of the Professorship of Climatology</td>
<td>Institute of Geography and Geology</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ECTS</th>
<th>Method of grading</th>
<th>Only after succ. compl. of module(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>numerical grade</td>
<td></td>
</tr>
</tbody>
</table>

<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>
<td>--</td>
</tr>
</tbody>
</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** (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 can be chosen to earn a bonus)

written examination (approx. 45 minutes)
Assessment offered: Once a year, winter semester
Language of assessment: German and/or English

**Allocation of places**

--

**Additional information**

--

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

§ 66 I Nr. 2
<table>
<thead>
<tr>
<th>Module title</th>
<th>Abbreviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Methods of Physical Geography 1</td>
<td>04-Geo-MPG1-152-m01</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Module coordinator</th>
<th>Module offered by</th>
</tr>
</thead>
<tbody>
<tr>
<td>holder of the Professorship of Climatology</td>
<td>Institute of Geography and Geology</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ECTS</th>
<th>Method of grading</th>
<th>Only after succ. compl. of module(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>numerical grade</td>
<td>--</td>
</tr>
</tbody>
</table>

<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>
<td>--</td>
</tr>
</tbody>
</table>

### 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 can be chosen to earn a 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

--

### Additional information

--

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

§ 66 I Nr. 2
## Subdivided Module Catalogue for the Subject
### Geography (Focus Physical Geography)

**major in a Bachelor’s degree programme, 120 ECTS credits**

<table>
<thead>
<tr>
<th>Module title</th>
<th>Abbreviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Methods of Physical Geography 2</td>
<td>04-Geo-MPG2-152-m01</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Module coordinator</th>
<th>Module offered by</th>
</tr>
</thead>
<tbody>
<tr>
<td>holder of the Professorship of Soil Science</td>
<td>Institute of Geography and Geology</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ECTS</th>
<th>Method of grading</th>
<th>Only after succ. compl. of module(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>numerical grade</td>
<td>--</td>
</tr>
</tbody>
</table>

<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>
<td>--</td>
</tr>
</tbody>
</table>

### 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)

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 can be chosen to earn a 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

--

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

§ 66 I Nr. 2

---

*JMU Würzburg • generated 03-Apr-2021 • exam. reg. data record Bachelor (120 ECTS) Geographie (Schwerpunkt Physische Geographie) - 2015*
### Module title
Methods of Physical Geography 3

### Abbreviation
04-Geo-MPG3-152-m01

### Module coordinator
holder of the Professorship of Geodynamics and Geomaterials Research

### 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
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 can be chosen to earn a 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
--

### Referred to in LPO I (examination regulations for teaching-degree programmes)
§ 66 l Nr. 2
### Subdivided Module Catalogue for the Subject Geography (Focus Physical Geography)

**major in a Bachelor’s degree programme, 120 ECTS credits**

<table>
<thead>
<tr>
<th>Module title</th>
<th>Abbreviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Natural landscape analysis</td>
<td>04-Geo-NRA-152-m01</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Module coordinator</th>
<th>Module offered by</th>
</tr>
</thead>
<tbody>
<tr>
<td>holder of the Professorship of Soil Science</td>
<td>Institute of Geography and Geology</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ECTS</th>
<th>Method of grading</th>
<th>Only after succ. compl. of module(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>numerical grade</td>
<td>--</td>
</tr>
</tbody>
</table>

<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>
<td>--</td>
</tr>
</tbody>
</table>

### Contents

The module aims to deepen basic knowledge by means of selected landscapes. Theme category groups related to "Physical Geography" are generated by examplary landscape units. The teaching approach is realised by the application of maps, digital elevation modells, 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 can be chosen to earn a 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

--

### Additional information

--

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

§ 66 I Nr. 2
### Special Issues of Human Geography 1

<table>
<thead>
<tr>
<th>Module title</th>
<th>Abbreviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Special Issues of Human Geography 1</td>
<td>04-Geo-SHG1-152-m01</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Module coordinator</th>
<th>Module offered by</th>
</tr>
</thead>
<tbody>
<tr>
<td>holder of the Professorship of Social Geography</td>
<td>Institute of Geography and Geology</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ECTS</th>
<th>Method of grading</th>
<th>Only after succ. compl. of module(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>numerical grade</td>
<td></td>
</tr>
</tbody>
</table>

<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>
<td></td>
</tr>
</tbody>
</table>

### 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

(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 can be chosen to earn a bonus)

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

Language of assessment: German and/or English

### Allocation of places

--

### Additional information

--

### 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>
</tr>
</thead>
<tbody>
<tr>
<td>Special Issues of Human Geography 2</td>
<td>04-Geo-SHG2-152-m01</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Module coordinator</th>
<th>Module offered by</th>
</tr>
</thead>
<tbody>
<tr>
<td>holder of the Professorship of Social Geography</td>
<td>Institute of Geography and Geology</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ECTS</th>
<th>Method of grading</th>
<th>Only after succ. compl. of module(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>numerical grade</td>
<td>--</td>
</tr>
</tbody>
</table>

<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>
<td>--</td>
</tr>
</tbody>
</table>

**Contents**

This module deals with chosen issues of "Theoretical and Applied Human Geography" from a sub-area of "Human Heography" (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 can be chosen to earn a bonus)

presentation (approx. 30 minutes) with related term paper (approx. 20 pages)
Language of assessment: German and/or English

**Allocation of places**

--

**Additional information**

--

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

§ 66 I Nr. 2
### Module title

**Special Issues of Human Geography 3**

### Abbreviation

04-Geo-SHG3-152-m01

### ECTS

5

### Method of grading

numerical grade

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

--

### Module coordinator

holder of the Professorship of Social Geography

### Module offered by

Institute of Geography and Geology

### Duration

1 semester

### Module level

undergraduate

### Other prerequisites

--

### 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)

<table>
<thead>
<tr>
<th>Type</th>
<th>Number of Weekly Contact Hours</th>
<th>Language</th>
</tr>
</thead>
<tbody>
<tr>
<td>V</td>
<td>2</td>
<td>German and/or English</td>
</tr>
</tbody>
</table>

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 can be chosen to earn a bonus)

written examination (approx. 45 minutes)

Assessment offered: Once a year, summer semester

Language of assessment: German and/or English

### Allocation of places

--

### Additional information

--

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

--
<table>
<thead>
<tr>
<th>Module title</th>
<th>Abbreviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spatial Planning and Information</td>
<td>04-Geo-RPI-152-m01</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Module coordinator</th>
<th>Module offered by</th>
</tr>
</thead>
<tbody>
<tr>
<td>holder of the Professorship of Geography and Regional Science</td>
<td>Institute of Geography and Geology</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ECTS</th>
<th>Method of grading</th>
<th>Only after succ. compl. of module(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>numerical grade</td>
<td>--</td>
</tr>
</tbody>
</table>

<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>
<td>--</td>
</tr>
</tbody>
</table>

### 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 can be chosen to earn a 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

--

### Additional information

--

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

§ 66 I Nr. 2
### Regional Geography - Lecture course 1

**Module title**  
Regional Geography - Lecture course 1

**Abbreviation**  
04-Geo-RG-V1-152-m01

**Module coordinator**  
holder of the Professorship of Physical Geography

**Module offered by**  
Institute of Geography and Geology

<table>
<thead>
<tr>
<th>ECTS</th>
<th>Method of grading</th>
<th>Only after succ. compl. of module(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>numerical grade</td>
<td>--</td>
</tr>
</tbody>
</table>

**Duration**  
1 semester

**Module level**  
undergraduate

**Other prerequisites**  
--

### 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 can be chosen to earn a 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

--

### Additional information

--

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

§ 47 I Nr. 2  
§ 66 I Nr. 1
Module title: Regional Geography - Lecture course 2

Abbreviation: 04-Geo-RG-V2-152-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

Module level: undergraduate

Other prerequisites: --

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):

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 can be chosen to earn a 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:

--

Additional information:

--

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

§ 47 I Nr. 2

§ 66 I Nr. 1
Module title | Abbreviation
---|---
Regional Geography - Seminar 1 | 04-Geo-RG-S1-152-m01

Module coordinator | Module offered by
holder of the Professorship of Physical Geography | 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
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 (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 can be chosen to earn a bonus)
presentation (approx. 30 minutes) with related term paper (approx. 20 pages)
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
--

Referred to in LPO I (examination regulations for teaching-degree programmes)
§ 66 I Nr. 1
### Subdivided Module Catalogue for the Subject Geography (Focus Physical Geography)

**Module title:** Regional Geography - Seminar 2  
**Abbreviation:** 04-Geo-RG-S2-152-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  
**Method of assessment:** Only after succ. compl. of module(s)  
**Duration:** 1 semester  
**Module level:** 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

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

**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 can be chosen to earn a bonus)  

Presentation (approx. 30 minutes) with related 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

--

**Referred to in LPO I** (examination regulations for teaching-degree programmes)  
§ 66 I Nr. 2
<table>
<thead>
<tr>
<th>Module title</th>
<th>Abbreviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scientific Writing and Presentation Skills in Earth Sciences</td>
<td>04-Geo-WAG-152-m01</td>
</tr>
</tbody>
</table>

**Module coordinator**

holder of the Professorship of Geography and Regional Science

**Module offered by**

Institute of Geography and Geology

<table>
<thead>
<tr>
<th>ECTS</th>
<th>Method of grading</th>
<th>Only after succ. compl. of module(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>(not) successfully completed</td>
<td>--</td>
</tr>
</tbody>
</table>

**Duration**

1 semester

**Module level**

undergraduate

**Other prerequisites**

--

**Contents**

Students will be provided with basics of scientific work in Geography: This includes dealing with literature, conception and writing of scientific texts as well as being able to present in an university style.

**Intended learning outcomes**

Students achieve basics concerning methods of scientific work. This refers to the fundamental design of scientific texts and oral presentations, application adequate working techniques as well as the necessary information competence.

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

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 can be chosen to earn a bonus)

presentation with or without slides (approx. 30 minutes)

Language of assessment: German and/or English

creditable for bonus

**Allocation of places**

--

**Additional information**

--

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

--
### Module title
Job-related Practical Experience 1

### Abbreviation
04-Geo-PRAK1-152-m01

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

### Module offered by
Institute of Geography and Geology

### ECTS
5

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

### (not) successfully completed
--

### Duration
undergraduate

### Other prerequisites
--

### Contents
The work placement has to be completed in a module-relevant office or company, which fits the professional career the student is looking for or must be completed by field work for four weeks outside of Europe. The work placement should comprise tasks that provides the intern with a comprehensive and adequate insight into the vocational world.

### Intended learning outcomes
Students receive first insights into job opportunities of geographers at an employer during a four-week work placement. Thus, students will have the opportunity to establish contacts and to get in touch with different vocational practices.

### Courses (type, number of weekly contact hours, language — if other than German)
P (0)
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 can be chosen to earn a bonus)
Language of assessment: German and/or English

### Allocation of places
--

### Additional information
Students must submit a letter issued by the institution at which they completed their placement. This letter must confirm the start and end dates as well as the contents of the placement.

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

Job-related Practical Experience 2

| Abbreviation | 04-Geo-PRAK2-152-m01 |

### Module coordinator

holder of the Professorship of Social Geography

### Module offered by

Institute of Geography and Geology

### ECTS

| Method of grading | Only after succ. compl. of module(s) | 5 |

### Duration

| Module level | Other prerequisites |

undergraduate

### Contents

The work placement has to be completed in a module-relevant office or company, which fits the professional career the student is looking for or must be completed by field work for four weeks outside of Europe. The work placement should comprise tasks that provides the intern with a comprehensive and adequate insight into the vocational world.

### Intended learning outcomes

Students receive first insights into job opportunities of geographers at an employer during a four-week work placement. Thus, students will have the opportunity to establish contacts and to get in touch with different vocational practices.

### Courses

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

P (0)

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 can be chosen to earn a bonus |

Language of assessment: German and/or English

### Allocation of places

--

### Additional information

Students must submit a letter issued by the institution at which they completed their placement. This letter must confirm the start and end dates as well as the contents of the placement.

### Referred to in LPO I

(examination regulations for teaching-degree programmes)

--
<table>
<thead>
<tr>
<th>Module title</th>
<th>Abbreviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bachelor Thesis Geography</td>
<td>04-Geo-AA-152-m01</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Module coordinator</th>
<th>Module offered by</th>
</tr>
</thead>
<tbody>
<tr>
<td>chairperson of examination committee Bachelor Geography (Geography)</td>
<td>Institute of Geography and Geology</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ECTS</th>
<th>Method of grading</th>
<th>Only after succ. compl. of module(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>numerical grade</td>
<td>--</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Duration</th>
<th>Module level</th>
<th>Other prerequisites</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>undergraduate</td>
<td>--</td>
</tr>
</tbody>
</table>

**Contents**

Adhering to the principles of good scholarly practice, students will independently process a scientific issue and produce a bachelor's thesis.

**Intended learning outcomes**

Students have the following skills:
- Ability to produce a scientific work (description and analysis of a problem, literature research, theory reference, interpretation of data, logical conclusions and solution approaches of a scientific issue) on their own.
- Linguistic competence.
- Ability to accomplish tasks in a given time period.

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

No courses assigned to module

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 can be chosen to earn a bonus)

Bachelor's thesis (approx. 40 pages)

Language of assessment: German and/or English

**Allocation of places**

--

**Additional information**

--

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

--
Module title | Abbreviation
---|---
Applied physical geography | 04-Geo-PPG-152-m01

Module coordinator | Module offered by
holder of the Professorship of Climatology | Institute of Geography and Geology

<table>
<thead>
<tr>
<th>ECTS</th>
<th>Method of grading</th>
<th>Only after succ. compl. of module(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>numerical grade</td>
<td>--</td>
</tr>
</tbody>
</table>

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

Contents
This module consists of an applied project dealing with a specific issue in "Physical Geography" and comprising the following procedures: data collection, data analysis and presentation of results.

Intended learning outcomes
The students learn how to practically implement a given objective in Physical Geography. They also gain experience in independent and autonomous teamwork.

Courses (type, number of weekly contact hours, language — if other than German)
S (4)
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 can be chosen to earn a bonus)
a) project (approx. 30 pages) or b) presentation (approx. 30 minutes) or c) term paper (approx. 20 pages)
Assessment offered: Once a year, summer semester
Language of assessment: German and/or English

Allocation of places
max. 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
--

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