Due to Covid 19, the education and evaluation methods may vary from the information displayed in the schedules and course details. Any changes will be communicated on Ufora.

Course
Specifications
Valid as from the academic year 2020-2021

Course size
(nominal values; actual values may depend on programme)
Credits 5.0 Study time 140 h Contact hrs 50.0 h

Course offerings and teaching methods in academic year 2020-2021
A (semester 2) Dutch Gent

<table>
<thead>
<tr>
<th>Lecturer</th>
<th>Offered</th>
<th>Credits</th>
<th>Offering</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vyverman, Wim</td>
<td>WE11</td>
<td>lecturer-in-charge</td>
<td></td>
</tr>
<tr>
<td>Verleyen, Elie</td>
<td>WE11</td>
<td>co-lecturer</td>
<td></td>
</tr>
</tbody>
</table>

Offered in the following programmes in 2020-2021

<table>
<thead>
<tr>
<th>Programme</th>
<th>Credits</th>
<th>Offering</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bachelor of Arts in Philosophy</td>
<td>5</td>
<td>A</td>
</tr>
<tr>
<td>Bachelor of Science in Biology</td>
<td>5</td>
<td>A</td>
</tr>
<tr>
<td>Preparatory Course Master of Science in Biology</td>
<td>5</td>
<td>A</td>
</tr>
</tbody>
</table>

Teaching languages
Dutch

Keywords
Geographic range, micro- and macro-evolution, biome, biota, earth's history, ecological and historical biogeography

Position of the course
Students are provided with a general introduction to the principles of ecological and historical biogeography. This includes a comprehension of the questions addressed in this discipline and the methods used to address them and some of the results obtained.

Contents
The physical environment, biological interactions and the distribution of organisms (geographic range, mapping and measuring range, auto-ecology, adaptation and gene flow)
Terrestrial and aquatic biomes and ecoregions
Changing continents and climates (Earth’s tectonic and climatic history, Pleistocene glaciation and biogeographic dynamics, glacial cycles and extinction)
Distributional patterns of organisms (endemics, relicts, disjunct patterns, )
Biogeographical classifications of the Earth
Dispersal, colonization and invasion (dispersal and range expansion, nature of barriers, biotic exchange and dispersal routes, colonization, founder effects)
Speciation and extinction (sympatry, allopatry, ..., hybrid zones, phylogeography, species duration and tempo of diversification, adaptive radiation, mass extinction)
Biogeographical distributions and the reconstruction of the history of life (centres of origin, panbiogeography, cladistic biogeography, endemcity analysis, ...)
Environmental impacts of human cultures and an introduction to the Holocene environmental history of Europe

Initial competences

(Approved)
The course builds on geological and ecological concepts and knowledge of biodiversity taught during Bachelor 1.

Final competences

1. The student knows the principal questions and research methods used in biogeography, has gained an understanding of global distributional patterns of communities and biota.
2. The student understands the nature and dynamics of the processes underlying these patterns, and appreciates how man has played an increasingly important impact on these patterns and processes.

Conditions for credit contract

Access to this course unit via a credit contract is determined after successful competences assessment.

Conditions for exam contract

This course unit cannot be taken via an exam contract.

Teaching methods

Lecture, self-reliant study activities, seminar: practical PC room classes, online lecture, online seminar: practical PC room classes.

Learning materials and price

Syllabus available, lecture slides are available through Ufora.

Cost: 35 EUR

References


Course content-related study coaching

During practical classes, biogeographical questions are studied using the primary literature and data obtained by the students as well as existing datasets that will be provided. During these classes, students can also pose general questions on the course’s content. During practical classes, the student learns how to use a number of basic techniques applied in biogeographic research.

Evaluation methods

End-of-term evaluation and continuous assessment.

Examination methods in case of periodic evaluation during the first examination period

Written examination with open questions.

Examination methods in case of periodic evaluation during the second examination period

Written examination with open questions.

Examination methods in case of permanent evaluation

Assignment, report.

Possibilities of retake in case of permanent evaluation

Examination during the second examination period is possible in modified form.

Extra information on the examination methods

Non-periodical evaluation:
1st examination period: exercises: reports on the practical exercises are evaluated.
2nd examination period: report based on scientific papers.

Calculation of the examination mark

Non-periodical evaluation: intermittent evaluation during the practical classes as well as of reports (25%).
Periodical evaluation: final exam (75%). Students need to pass for both parts of the evaluation. In case a student fails for one of the parts, a maximum score of 9/20 can be obtained.

In the case of failure for the intermittent evaluation, the student is offered a second chance via a compensating individual task between the first and second exam period.

(Approved)