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 in the academic year 2019-2020

Geology of Building Stones (C003995)

Course size (nominal values; actual values may depend on programme)
Credits 6.0 Study time 176 h Contact hrs 52.0 h

Course offerings and teaching methods in academic year 2019-2020
A (semester 1) English Gent lecture 22.5 h
practicum 15.0 h
fieldwork 15.0 h

Lecturers in academic year 2019-2020
Cnudde, Veerle WE13 lecturer-in-charge
De Kock, Tim WE13 co-lecturer

Offered in the following programmes in 2019-2020

<table>
<thead>
<tr>
<th>Programme (main subject Geology)</th>
<th>6</th>
<th>A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Master of Science in Teaching in Science and Technology</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>Master of Science in Geology</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>Master of Science in Geology</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>International Master of Science in Sustainable and Innovative Natural Resource Management</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>Exchange programme in Geology (master's level)</td>
<td>6</td>
<td></td>
</tr>
</tbody>
</table>

Teaching languages
English

Keywords
natural stone, macro- and microscopical characteristics, technical characteristics, techniques, weathering

Position of the course
This course covers the use, technical properties, geological background and the weathering of natural stones in general. The main local and imported building stones in Belgium are treated in specific detail.

Contents
The main building stones in Belgium: geology, macroscopic and microscopic properties, petrophysical properties, weathering, historic use, etc.
Tests for characterization and durability and international standardisation.
Weathering and conservation of natural stone: weathering processes, techniques for conservation and restoration.
Case-studies on application and damage.

Initial competences
basic knowledge of optical mineralogy and petrography

Final competences
1 Recognizing the main used building stones in Belgium based on macroscopic and microscopic properties.
2 Knowledge of natural stone in historic buildings: geology, macroscopic and microscopic properties, technical properties, weathering and potential replacement stones.
3 Knowledge of tests for characterization and durability and international standards.
4 Developing a research plan for the identification of natural building stones, the characterization of their properties and damage assessment.
5 Report scientific results and evaluate them in an uncertain context.

(Contact hrs Study time 176 h Contact hrs 52.0 h)
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, practicum, fieldwork

Extra information on the teaching methods
Practicals: Petrography of natural stones used in Belgium (hand specimens and microscopy); petrophysical testing.
Microteaching: presentation of building stones or case studies.

Learning materials and price
Syllabus (mainly based on standard works, a.o. see references)
Estimated cost excursions: 14 euro

References
Publications BBRI
Gent...Steengoed!, Cnudde et al., 2009. Academia press, 416 p.

Course content-related study coaching
Interactive support by Ufora (e-mail); personal contact after appointment.

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
Skills test, job performance assessment

Possibilities of retake in case of permanent evaluation
not applicable

Extra information on the examination methods
Periodic evaluation: written exam + practical exam petrography.
Participation to the practical exercises is obligatory. The student is evaluated weekly during the practical excercises as well as on the content and quality of any assignment.

Calculation of the examination mark
• Written exam 60% of the final mark
• Practical exam + assignment(s) 40% of the final mark
Not attending the practical courses, without a justified reason can lead to a failure

(Approved)