Course Specifications
Valid as from the academic year 2019-2020

Course

Valid as from the academic year 2019-2020

Course size (nominal values; actual values may depend on programme)

<table>
<thead>
<tr>
<th>Credits</th>
<th>Study time</th>
<th>Contact hrs</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.0</td>
<td>120 h</td>
<td>45.0 h</td>
</tr>
</tbody>
</table>

Course offerings and teaching methods in academic year 2019-2020

A (semester 2) Dutch
- seminar 15.0 h
- lecture 30.0 h

E (semester 2) English
- guided self-study 7.5 h
- seminar 15.0 h

Lecturers in academic year 2019-2020
Strubbe, Katrien WE06 lecturer-in-charge

Offered in the following programmes in 2019-2020

<table>
<thead>
<tr>
<th>Credits</th>
<th>Offering</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>A</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
</tr>
<tr>
<td>4</td>
<td>A, E</td>
</tr>
</tbody>
</table>

Dutch, English

General chemistry

Position of the course
This course is aimed towards the fundamental training of the practitoning economist in chemistry. It adresses the development of insight into the basics of chemistry as well as the development of problem solving skills. Besides that, the role and impact of chemistry in daily life and industry is adressed.

Contents

1 Matter, elements, compounds
2 Periodic system and nomenclature
3 Atomic theory
4 Chemical bond
5 Thermochemistry and elementary thermodynamics
6 Chemical reactions, chemical calculations
7 Rate of reactions, catalysis
8 Redox reactions
9 Chemical equilibrium
10 Acids and bases
11 Intermolecular interactions

Initial competences
Basic knowledge of chemistry, mathematics, physics.

Final competences
1 To possess the ability to express chemical reactions in a quantitative way (yield, composition, concentration, mass...).
2 To clarify and understand the differences between the lab scale and the industrial scale.
3 To provide an insight in the structure and behavior of matter.
4 To know some important reactions and processes in society.

(Approved)
Conditions for credit contract
Access to this course unit via a credit contract is unrestricted: the student takes into consideration the conditions mentioned in ‘Starting Competences’

Conditions for exam contract
Access to this course unit via an exam contract is unrestricted

Teaching methods
Guided self-study, lecture, seminar

Extra information on the teaching methods
Course session A:
Lectures.
Seminar: exercises (data will be communicated in the lectures and on the ELO)

Course session E:
Lectures.
Seminar: exercises (data will be communicated in the lectures and on the ELO)

Learning materials and price
Course session A:
• syllabus, 200 pages (12 €)
• slides (Ufora)
• Exercises (Seminar and Ufora)
Course session E:
• syllabus, 200 pages (12 euro)
• ppt (ufora)
• Exercises on Ufora (curios)

References
Chemistry, Raymond Chang, Mc Graw Hill, most recent edition

Course content-related study coaching
Possibility to ask questions during the contact sessions
Exercises by means of the electronic learning environment

Evaluation methods
end-of-term evaluation

Examination methods in case of periodic evaluation during the first examination period
Written examination with open questions, written examination

Examination methods in case of periodic evaluation during the second examination period
Written examination with open questions, written examination

Examination methods in case of permanent evaluation
Possibilities of retake in case of permanent evaluation
not applicable

Extra information on the examination methods
Written examination with open questions. the focus is on showing insight into and being able to apply the material. Knowledge of concepts is tested under applied form.

Calculation of the examination mark
Every question corresponds to a given percentage of the global mark. The scores on the individual questions are summed.

(Approved)