Course offer
Chemistry Exchange

Academic year 2021-2022

UNIVERSITY OF APPLIED SCIENCES

CHEMISTRY

Chemistry is all about experimenting, researching and analysing. You are going to ensure diseases are no longer life-threatening, or you'll be solving murder cases based on DNA analyses.

You will be researching the composition of substances and products and will be able to analyse these down to the very last molecule. You also will develop new bio based materials or innovative methods based on rules of green chemistry based From waste water to medicine to plastics. The future is shaped by chemistry!

COURSE OFFER 2021-2022

Fall Semester
Based on your educational background the programme coordinator will determine whether you will be admitted to the 1st, 2nd or 3rd year. Each topic (1 block per Q) contains a total of 15 ECT's.

You may choose courses from the second year topics. Topics in the fall semester (Q1 and Q2) of the **1st year** are

- Food Chemistry (Q1)
- Quality control (Q2)

You may choose courses from the second year topics. Topics in the fall semester (Q1 and Q2) of the **2nd year** are

- Environmental Chemistry & Toxicology (Q1)
- Bio-organic toolbox. (Q2)

You can follow **3rd year** courses either from the Applied Chemistry or Life Sciences specialisation. Topics of the fall semester (Q1 and Q2) are

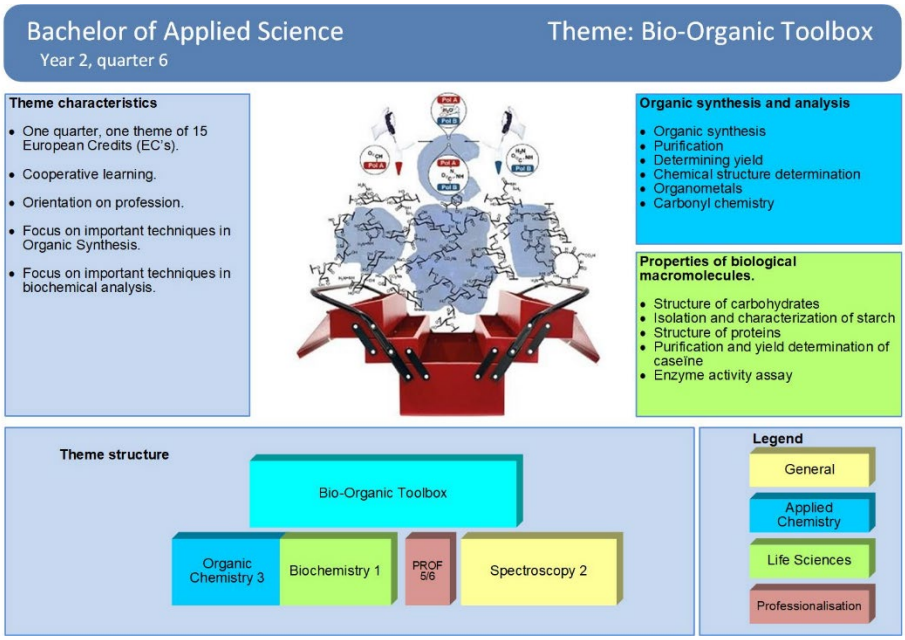
Applied Chemistry:

- Specialisation Applied Chemistry I (Q1)
- Specialisation Applied Chemistry II (Q2)

Life Science:

- From Molecules & Cells to Human Health (Q1)
- Achievements & Challenges of Life Sciences (Q2)

(*For course descriptions see Implementation Regulations.*)



Visual example,Bio Organic Toolbox fall semester 2nd year

Visual example, Environmental Chemistry & Toxicology fall semester 2nd year

Spring semester

In our spring semester you can follow courses from our 1st or 2nd year. Topics of the spring semester (Q3 and Q4) of the program of the 1st year are:

- Biobased Products & Technology (Q3)
- Health & Chemistry (Q4)

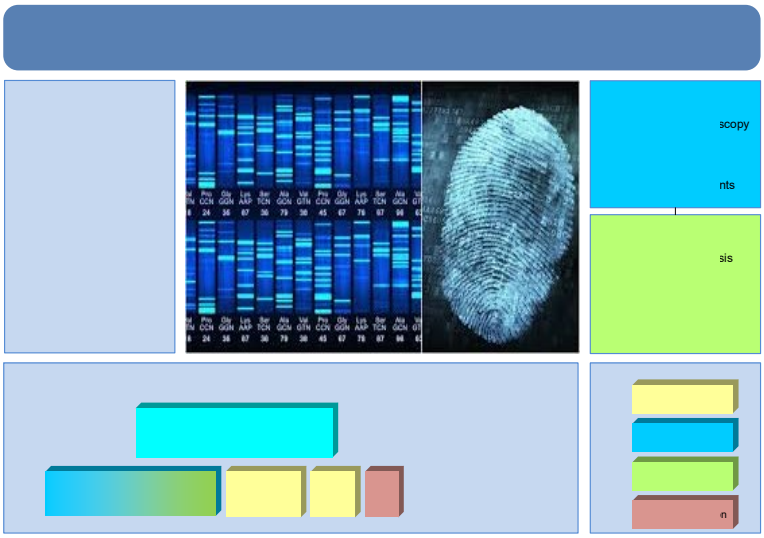
Topics of the spring semester (Q3 and Q4) of the program of the 2nd year are:

- Forensic Science (Q3)
- Marine Bio based Specialties (Q4)

(For course descriptions see Implementation Regulations.)

Quarter 7 (Q3) Forensic Science

In this quarter different chemical, biochemical and also biological techniques will be topic of the program. Both theoretical lessons and practicals as well will travel through the interesting world of forensic research to learn you how to solve crimes at the lab.



Visual example, Forensic Science, Spring semester 2nd year.

Quarter 8 (Q4), Marine Bio based Specialties

The chemistry program does have a very close cooperation with the research group of Marine Bio based Specialties. This research group focusses on scientific research on marine organism and their chemical and biological content. Based on this research application of the results is part of the research program. As a student you will get involved in the current research projects of marine bio based topics. This will learn you how we can face challenging problems and how to contribute to a demanding search for solutions to create a more bio based economy.

Based on your educational background the programme coordinator will determine whether you will be admitted to the 1st, 2nd or 3rd year.

Additional you can choose the courses below which are especially for exchange students.

- Dutch Culture & Language 2 ECTS
- Peer Project 1,25 ECTS

Project: Marine Bio based Specialties

3rd and 4th years students may also work on research topics related to the Bio based economy. This research can be done in the 1st semester and the 2nd semester as well. The research group Marine Bio based Specialties is working on analysis of bio-active molecules in marine organism. Final goals of this research is develop useful applications and products. Fundamental research is combined with scientific knowledge of physiology and ecology of marine organism. You will develop on skills and knowledge of chemical isolation, analysis and applications of chemical marine components. Examples of topics of research are signaling components, natural UV- resistant molecules and also taste- and texture related molecules in algae and seaweed.