



Course offer Chemistry Exchange

Academic year 2025-2026



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 2025-2026

Semester	Quarter	Study programme component	Credits in total per semester	Course code	EC	Abbreviation	Title
1	Q1	Block 01 Food Chemistry	30,00	CU20623V3	5,00	BeerChe	Beer Chemistry
				CU20624V1	5,00	Che1Mic1	Chemistry 1 and Microbiology 1
				CU76012V1	2,50	Math	Mathematics
				CU76014	2,50	Q&S	Quality & Safety
				CU20626V3	5,00	PoolChe	Pool Chemistry
				CU20627V1	5,00	Che2Mic2	Chemistry 2 and Microbiology 2
	Q2	Block 02 Quality Control		CU34638V21	2,00	Dutch CL	Dutch Culture & Language
					1,25	HZP1	HZ Personality 1
					1,75	Prof	Professionalization
2	Q3	Block 03 Biobased Products & Technology	30,00	CU20629V3	5,00	Bioproduct	Bioproduct Extraction & Analysis
				CU20630V1	5,00	Org1Bio1	Organic Chemistry 1 & Cell biology 1
				CU20631V2	2,50	BioBpr	Biobased Products & Materials
				CU76015	2,50	Data1	Data analysis 1
				CU20632V3	5,00	BioAc	Biologically Active Compounds
				CU20633V1	5,00	Org2Bio2	Organic Chemistry 2 & Cell biology 2
	Q4	Block 04 Health & Chemistry		CU34638V21	2,00	Dutch CL	Dutch Culture & Language
					1,25	HZP1	HZ Personality 1
					1,75	Prof	Professionalization
1	Q1	Block 05 Environmental Chemistry & Toxicology	30,00	CU24063V2	5,00	EnvTox	Environmental Chemistry & Toxicology
				CU24064	5,00	Spe1Tox	Spectroscopy 1 & Toxicology
				CU76018	1,25	Data2	Data analysis 2
				CU24067V2	5,00	BOT	Bio-organic Toolbox
				CU24068	5,00	Org3Bch1	Organic chemistry 3 and Biochemistry 1
				CU76019	3,75	Spe2	Spectroscopy 2
	Q2	Block 06 Bio-organic Toolbox		CU34638V21	2,00	Dutch CL	Dutch Culture & Language
					1,25	HZP1	HZ Personality 1
					1,75	Prof	Professionalization
2	Q3	Block 07 Forensic Science	30,00	CU24074V2	5,00	FSc	Forensic Science
				CU24075	5,00	Spe3Sep1DNA1	Spectroscopy 3 / Separations1 & DNA 1
				CU76021	1,25	Data3	Data analysis 3
				CU24077V2	5,00	MBC	Marine Biobased Chemistry
				CU24078	5,00	Research/Sep2/Bch2	Research cycle / Separations 2 & Biochemistry 2
				CU76023V1	2,50	L&S	Labmanagement & Safety
	Q4	Block 08 Marine Biobased Chemistry		CU34638V21	2,00	Dutch CL	Dutch Culture & Language
					1,25	HZP1	HZ Personality 1
					1,25	HZP2	HZ Personality 2
1	Q1	Block 09 Specialisation Applied Chemistry I	30,0		1,75	Prof	Professionalization
				CU76000V2	5,0	CHRpr	Chromatography practice
				CU76001V1	5,0	POL	Polymer chemistry & analysis
				CU76002V1	5,0	CChe	Circular Chemistry
				CU76006V2	5,0	CCpr	Circular Chemistry practice
				CU76007V1	5,0	CHRth	Advanced Chromatography
	Q2	Block 10 Specialisation Applied Chemistry II		CU34638V21	2,00	Dutch CL	Dutch Culture & Language
					1,25	HZP1	HZ Personality 1
					1,75	Prof	Professionalization
1	Q1	Block 09 From Molecules & Cells to Human Health	30,0	CU76003V2	5,0	IMMpr	Immunology practice
				CU76004	5,0	Imm1Bch3	Immunology 1 & Biochemistry 3
				CU13416V6	2,5	BioTech	Biotechnology
				CU76009V2	5,0	MolBio	Molecular Biology toolbox
				CU76010	5,0	Imm2DNA2	Immunology 2 & DNA 2
				CU13415V6	2,5	Biolnf	Bioinformatics
	Q2	Block 10 Achievements & Challenges of Life Sciences		CU34638V21	2,00	Dutch CL	Dutch Culture & Language
					1,25	HZP1	HZ Personality 1
					1,75	Prof	Professionalization
2		Minor	30,0	CU05600V12	30,0	MINOR	Research minor

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)

The full description of the courses can be found at the following link: [https://hz.nl/en/about-hz/rules-and-regulations-under "Regulations study programmes"](https://hz.nl/en/about-hz/rules-and-regulations-under-Regulations-study-programmes).

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)

The full description of the courses can be found at the following link: [https://hz.nl/en/about-hz/rules-and-regulations-under "Regulations study programmes"](https://hz.nl/en/about-hz/rules-and-regulations-under-Regulations-study-programmes).

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.

Quarter 8 (Q4), Marine Bio based Chemistry

The chemistry program does have a very close cooperation with the research group of Marine Bio based Chemistry. 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 course below which is especially for exchange students.

- Dutch Culture & Language 2 ECTS

Project: Marine Bio based Chemistry

3rd and 4th years students may also work on research topics related to the Bio based economy. This research can be done in the 2nd semester. The research group Marine Bio based Chemistry 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.