

Studies Plan

CGC Orientation 2024-25

Biological and biophysical chemistry

Courses			Bachelor 5	Bachelor 6	Exam Session	Exam	Credit
Language Code	Section	Teacher	l e p	l e p			
Chemical biology							
E	CH-313 CGC	Hovius	2h		Win	Written	2
Drug discovery and development							
E	CH-317 CGC	Heinis		2h	Sum	Written	2
Dynamics of biomolecular processes							
E	CH-312 CGC	Fierz		2h	Sum	Written	2
Experimental biochemistry and biophysics							
E	CH-319 CGC	Hovius		6h	Sum	During the semester	4
Macromolecular structure and interactions							
E	CH-311 CGC	Fierz	2h		Win	Written	2

Block 4

Courses			Bachelor 5	Bachelor 6	Exam Session	Exam	Credit
Language Code	Section	Teacher	l e p	l e p			
Dynamics and kinetics							
E	CH-310 CGC	Feldmann	2h 1h		Win	Written	3
Experimental physical chemistry							
E	CH-349 CGC	Emsley		4h	Sum	During the semester	4
Modeling lab							
E	CH-315 CGC	Smit	4h		Win	During the semester	3
Organic functions and reactions II							
E	CH-234 CGC	Bobbink	2h		Win	Written	2
Preparative chemistry I							
F	CH-220 CGC	Cramer Dyson	8h		Win	During the semester	4
Structural analysis							
E	CH-314 CGC	Bostedt Boyarkine Emsley	3h 1h		Win	Written	4

Computational chemistry

Courses			Bachelor 5	Bachelor 6	Exam Session	Exam	Credit
Language Code	Section	Teacher	l e p	l e p			
Introduction to cheminformatics							
F	CH-352 CGC	Patiny		2h 1h	Sum	During the semester	3
Introduction to electronic structure methods							
E	CH-353 CGC	Röthlisberger	2h 2h		Win	During the semester	4
Molecular dynamics and Monte-Carlo simulation							
E	CH-351 CGC	Röthlisberger		1h 1h	Sum	During the semester	2
Project of Computational chemistry							
F	CH-359 CGC	Corminboeuf Röthlisberger Smit Vanicek		4h	Sum	During the semester	3

Free module

Courses			Bachelor 5	Bachelor 6	Exam Session	Exam	Credit
Language Code	Section	Teacher	l e p	l e p			
Algebra							
E	MATH-310 MA	Lachowska	2h 2h		Win	Written	4

F	Analysis III MATH-203(b)	MA	Strütt	2h 2h		Win	Written	4
F	Analysis IV MATH-207(d)	MA	Licht		2h 2h	Sum	Written	4
E	Causal thinking MATH-352	MA	Stensrud	2h 2h		Win	Written	5
E	Discrete optimization MATH-261	MA	Eisenbrand		2h 2h	Sum	Written	5
E	Introduction to optimization and operations research MATH-265	GC	Bierlaire	2h 2h		Win	Written	4
E	Numerical analysis MATH-251(b)	MA	Herbst		2h 2h	Sum	Written	4

Module 4 - Chimie physique

Courses			Bachelor 5	Bachelor 6	Exam Session	Exam	Credit	
Language	Code	Section	Teacher	l e p	l e p			
E	Advanced nuclear magnetic resonance CH-401	CGC	Emsley		2h	Sum	Written	3
F	Electrochemistry of solutions CH-243	CGC	Roussel	2h 1h		Win	Written	3
E	Methods in spectroscopy and dynamics CH-340	CGC	Osterwalder		2h 1h	Sum	During the semester	3
E	Numerical methods ChE-312	CGC	Miskovic Sivula		2h 1h	Sum	During the semester	3

Synthetic chemistry

Courses			Bachelor 5	Bachelor 6	Exam Session	Exam	Credit	
Language	Code	Section	Teacher	l e p	l e p			
F	Asymmetric synthesis and retrosynthesis CH-335	CGC	Gerber Nicolai		3h 1h	Sum	Oral	4
F	Preparative chemistry II CH-329	CGC	Hu Severin		8h	Sum	During the semester	8