Studies Plan

CGC Orientation 2026-27

Biological and biophysical chemistry

Lang.	Courses Code	Sect.	Teacher	Bachelor 5 C	E	L	T	P	I	Bachelor 6 C	E	L	T	P	I	Exam Session	Exam	Credit
E	**Chemical biology** CH-313	CGC	Jeschek	2h												Win	Written	2
E	**Drug discovery and development** CH-317	CGC	Heinis							2h						Sum	Written	2
E	**Dynamics of biomolecular processes** CH-312	CGC	Fierz							2h						Sum	Written	2
E	**Experimental biochemistry and biophysics** CH-319	CGC	Bahls Hovius										6h			Sum	During the semester	4
E	**Macromolecular structure and interactions** CH-311	CGC	Fierz	2h												Win	Written	2

Block 4

Lang.	Courses Code	Sect.	Teacher	Bachelor 5 C	E	L	T	P	I	Bachelor 6 C	E	L	T	P	I	Exam Session	Exam	Credit
E	**Dynamics and kinetics** CH-310	CGC	Feldmann	2h	1h											Win	Written	3
E	**Experimental physical chemistry** CH-349	CGC	Emsley											4h		Sum	During the semester	4
E	**Modeling lab** CH-315	CGC	Smit					4h								Win	During the semester	3
E	**Organic functions and reactions II** CH-234	CGC	Cramer	2h												Win	Written	2
F	**Preparative chemistry I** CH-220	CGC	Cramer Dyson			8h										Win	During the semester	4
E	**Structural analysis** CH-314	CGC	Bostedt Emsley Miéville	3h	1h											Win	Written	4

Computational chemistry

Lang.	Courses Code	Sect.	Teacher	Bachelor 5 C	E	L	T	P	I	Bachelor 6 C	E	L	T	P	I	Exam Session	Exam	Credit
F	**Introduction to cheminformatics** CH-352	CGC	Patiny							2h	1h					Sum	During the semester	3
E	**Introduction to electronic structure methods** CH-353	CGC	Röthlisberger	2h	2h											Win	During the semester	4
E	**Molecular dynamics and Monte-Carlo simulation** CH-351	CGC	Röthlisberger							1h	1h					Sum	During the semester	2

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	Project of Computational chemistry																	
F	*CH-359*	*CGC*	*Corminboeuf* *Patiny* *Röthlisberger* *Schwaller* *Smit* *Vanicek*											4h	*Sum*	*During the semester*	*3*

Free module

	Courses			***Bachelor 5***						***Bachelor 6***						***Exam Session***	***Exam***	***Credit***
Lang.	*Code*	*Sect.*	*Teacher*	*C*	*E*	*L*	*T*	*P*	*I*	*C*	*E*	*L*	*T*	*P*	*I*			
	Algebra																	
E	*MATH-310*	*MA*	*Lachowska*	2h	2h											*Win*	*Written*	*4*
	Analysis III																	
E	*MATH-203(b)*	*MA*	*Smetana*	2h	2h											*Win*	*Written*	*4*
	Analysis IV																	
E	*MATH-207(d)*	*MA*	*Braun*							2h	2h					*Sum*	*Written*	*4*
	Causal thinking																	
E	*MATH-352*	*MA*	*Stensrud*							2h	2h					*Sum*	*Written*	*5*
	Discrete optimization																	
E	*MATH-261*	*MA*	*Eisenbrand*							2h	2h					*Sum*	*Written*	*5*
	Introduction to optimization and operations research																	
E	*MATH-265*	*GC*	*Bierlaire*	2h	2h											*Win*	*Written*	*4*
	Numerical analysis																	
E	*MATH-251(b)*	*MA*	*Herbst*							2h	2h					*Sum*	*Written*	*4*

Module 4 - Chimie physique

	Courses			***Bachelor 5***						***Bachelor 6***						***Exam Session***	***Exam***	***Credit***
Lang.	*Code*	*Sect.*	*Teacher*	*C*	*E*	*L*	*T*	*P*	*I*	*C*	*E*	*L*	*T*	*P*	*I*			
	Advanced nuclear magnetic resonance																	
E	*CH-401*	*CGC*	*Emsley*							1h	1h					*Sum*	*Written*	*3*
	Electrochemistry of solutions																	
F	*CH-243*	*CGC*	*Gschwend*	2h	1h											*Win*	*Written*	*3*
	Methods in spectroscopy and dynamics																	
E	*CH-340*	*CGC*	*Osterwalder*							2h	1h					*Sum*	*During the semester*	*3*
	Numerical methods																	
E	*ChE-312*	*CGC*	*Miskovic*							2h	1h					*Sum*	*During the semester*	*3*

Synthetic chemistry

	Courses			***Bachelor 5***						***Bachelor 6***						***Exam Session***	***Exam***	***Credit***
Lang.	*Code*	*Sect.*	*Teacher*	*C*	*E*	*L*	*T*	*P*	*I*	*C*	*E*	*L*	*T*	*P*	*I*			
	Asymmetric synthesis and retrosynthesis																	
E	*CH-335*	*CGC*	*Gerber* *Nicolai*							3h	1h					*Sum*	*Written*	*4*
	Medicinal chemistry																	
E	*CH-332*	*CGC*	*Kozicka*	2h												*Win*	*Written*	*2*
	Preparative chemistry II																	
F	*CH-329*	*CGC*	*Hu* *Severin*									8h				*Sum*	*During the semester*	*6*

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