

Minor: Chemistry

Course substitution arrangements for students who continue their studies according to the curriculum of 2022-2024 during the transitional period of 1.8.2024 - 31.12.2025, when some of the courses of the curriculum 2022-2024 are no longer taught.

Compulsory courses (20 credits)			
Code	Course name	ECTS credits	Equivalence in 1.8.2024 - 31.12.2025
<u>CHEM-E4110</u>	Quantum Mechanics and Spectroscopy	5	CHEM-C3230 Molecular Quantum Mechanics
<u>CHEM-E4120</u>	Quantitative Instrumental Analysis	5	CHEM-E4112 Research Techniques
<u>CHEM-E4130</u>	Chemistry of the Elements	5	The course continues
<u>CHEM-E4170</u>	Advanced Organic Chemistry	5	The course continues
Elective course (0-5 credits)			
Select 0–1 courses below so that the minor will be 20–25 cr.			
Code	Course name	ECTS credits	Equivalence in 1.8.2024 - 31.12.2025
Analytical Chemistry:			
<u>CHEM-E4135</u>	Advanced Analytical Chemistry	5	Course is discontinued, no direct equivalences. Not a compulsory course. Courses from University of Helsinki could be used as substitute.
<u>CHEM-E4165</u>	Chemical Instrumentation and Electroanalytical Methods	5	Course is discontinued, no direct equivalences. Not a compulsory course. Courses from University of Helsinki could be used as substitute.
Organic Chemistry:			
<u>CHEM-E4116</u>	Synthesis Strategies and Design	5	The course continues
<u>CHEM-E4230</u>	Physical Organic Chemistry	5	The course continues
<u>CHEM-E4206</u>	Organic Chemistry Literature Club	5	The course continues
<u>CHEM-E4108</u>	Modern Methods in Metal Catalysis D	5	The course continues
<u>CHEM-E8100</u>	Organic Structural Analysis	5	The course continues
Inorganic Chemistry:			
<u>CHEM-E4105</u>	Nanochemistry and Nanoengineering	5	The course continues
<u>CHEM-E4155</u>	Solid State Chemistry	5	The course continues
<u>CHEM-E4205</u>	Crystallography Basics and Structural Characterization	5	The course continues
<u>CHEM-E4215</u>	Functional Inorganic Materials	5	The course continues

Physical and Computational Chemistry:			
<u>CHEM-E4115</u>	Computational Chemistry I D	5	CHEM-E4114 Computational Methods
<u>CHEM-E4106</u>	Electrochemistry D	5	The course continues
<u>CHEM-E4210</u>	Molecular Thermodynamics L	5	The course continues
<u>CHEM-E4225</u>	Computational Chemistry II D	5	CHEM-E4126 Atomic-level Modelling Using Computational Chemistry Methods
<u>CHEM-E4235</u>	Transport Processes at Electrodes and Membranes	5	Discontinued. No replacement course.
<u>CHEM-E4255</u>	Electrochemical Energy Conversion	5	The course continues