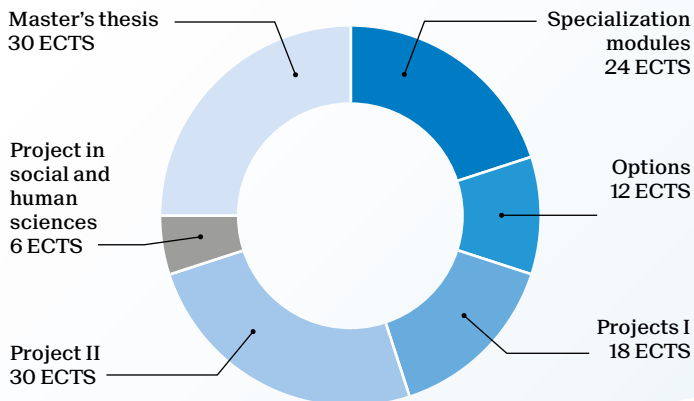


Master of Science in MOLECULAR AND BIOLOGICAL CHEMISTRY

2-year program - 120 ECTS



Specialization modules

Students must choose 3 modules in the specialization modules group.

Minor

Students can opt for a 30 ECTS minor instead of the project in molecular sciences II preferably in:

- Management, technology and entrepreneurship

	Credits
Specialization modules	24
Analytical and bioanalytical chemistry	8
Chemical biology of cell imaging	3
Physical and chemical analyses of materials	3
Protein mass spectrometry and proteomics	2
Biological chemistry and biophysics	8
Cellular signaling	2
Frontiers in chemical biology	3
Nanobiotechnology and biophysics	3
Computational chemistry	8
Computational methods in molecular quantum mechanics	4
Understanding advanced molecular simulation	4
Inorganic chemistry	8
Catalysis for energy storage	3
Catalyst design for synthesis	2
Solid state chemistry and energy applications	3
Organic chemistry	8
Physical and computational organic chemistry	2
Structure and reactivity	3
Total synthesis of natural products	3
Physical chemistry	8
Molecular quantum dynamics	3
Optical methods in chemistry	3
Photochemistry I	2
Options	12
Risk management	2
Molecular and supramolecular science	
Artificial photosynthesis	2
Catalytic asymmetric reactions in organic chemistry	3
Chemistry of f elements	2
Supramolecular chemistry	2
Physical and analytical chemistry	
Fundamental of biosensors and electronic biochips	3
Photochemistry II	2
Photomedicine	2
Material science	
Advanced materials for photovoltaics and lighting	2
Nanomaterials	3
Organic electronic materials	4
Physical chemistry of polymeric materials	3
Polymer chemistry and macromolecular engineering	3
Food science	
Chemistry of food processes	2
Chimie des denrées alimentaires	2
Projects I	18
Project in molecular sciences Ia	6
Project in molecular sciences Ib	12