

The Master of Science Programme in *Molecular Sciences* at UiT has a duration of 2 years and equals a total of 120 ECTS (Figure 1). Each Master's candidate works on a research project to complete an independent scientific dissertation (thesis, 60 ECTS). In addition, the programme includes topical coursework, where 20 ECTS are obligatory for all students admitted to the programme, and 40 ECTS are to expand on the students chosen discipline and other special curricula (total 60 ECTS). Within each discipline, certain courses are mandatory.

	Theoretical and Computational Chemistry*			Chemical Synthesis and Spectroscopy**			Biomolecular Chemistry and Bioinformatics***		
1st sem	KJE3001		KJE3102	KJE3001		KJE3301 or Opt	KJE3001		KJE3402
2nd sem	KJE3101 or KJE3106	Opt	Opt	KJE3303 <sup>#</sup> , KJE3308 <sup>#</sup> , or KJE3201	Opt		KJE3403 <sup>#</sup> , KJE3603, or BIO3323	Opt	Opt
3rd sem	Thesis			Thesis			Thesis		
4th sem	Thesis			Thesis			Thesis		

\* In addition to KJE-3001 and KJE-3102, 10 ECTS chosen among KJE-3101, KJE-3106 or KJE-3201, depending on specialization

\*\* In addition to KJE-3001, 20 ECTS chosen among KJE-3301, KJE-3303, KJE-3201 and KJE-3308, depending on specialization

\*\*\* In addition to KJE-3001 and KJE-3402, 10 ECTS chosen among KJE-3403, KJE-3603 or BIO-3323, depending on specialization

# Course given only every 2<sup>nd</sup> year

**Figure 1** Programme structure for disciplines within the Master of Science Programme in Molecular Sciences

Optional courses (40 ECTS) should be chosen from the list below. Exceptions can be made for other relevant courses at Master's levels at UiT or other Universities. Exceptions must be approved by the Department of Chemistry. Some courses may be mandatory for certain areas of specialization.

**Table 2** List of Master courses at Department of Chemistry

<b>KJE-3001</b>	Interdisciplinary molecular sciences: From quantum mechanics to medicine (new)
<b>KJE-3101</b>	Quantum chemistry
<b>KJE-3102</b>	Computational chemistry
<b>KJE-3103</b>	Quantum chemical methods
<b>KJE-3106</b>	Molecular modelling (new)
<b>KJE-3201</b>	Bioinorganic chemistry
<b>KJE-3301</b>	Organic Chemistry 2
<b>KJE-3303</b>	Nuclear Magnetic Resonance spectroscopy
<b>KJE-3308</b>	Metal-Organic Compounds in Organic Synthesis
<b>KJE-3309</b>	Reaction Mechanisms
<b>KJE-3313</b>	Advanced Organic Chemistry
<b>BIO-3323</b>	Bioinformatics: Genomes and genomics
<b>KJE-3402</b>	Protein Structure
<b>KJE-3403</b>	X-ray Crystallography 1
<b>KJE-3501</b>	Introduction to research methodology in organic chemistry
<b>KJE-3603</b>	Protein Production Technology
<b>KJE-3805</b>	Individual special curriculum – Master degree (5 ECTS)
<b>KJE-3810</b>	Individual special curriculum – Master degree (10 ECTS)
<b>KJE-3815</b>	Individual special curriculum – Master degree (15 ECTS)
<b>KJE-3820</b>	Individual special curriculum – Master degree (20 ECTS)