

# Master degree programme Chemistry

## Appendices to the Teaching and Examination Regulations

### Appendix A Aim of the degree programme (art. 1.3)

The degree programme aims to train the students in such a way that they acquire the insight, skills and knowledge that allows the recipient of the degree to establish a professional career in the field of Chemistry.

### Appendix B Specializations of degree programme (art. 2.2)

The degree programme has the following specializations:

- Chemical Physics
- Molecular Chemistry
- Polymer Science
- Science, Business and Policy

### Appendix C Content of degree programme (art. 2.3)

#### Specialization Chemical Physics

module	ECTS	assessment	practical
Research Project in Chemical Physics	45	assessment of performance, report, presentation	x
Second research project or traineeship	15	assessment of performance, report, presentation	x
Colloquium	10	report, presentation	
Electromagnetism of Solids	5	written examination	
X-ray Diffraction	5	written examination	
Optional courses in Chemical Physics	40	see appendix D	see app. D

#### Specialization Molecular Chemistry

module	ECTS	assessment	practical
Research Project in Molecular Chemistry	45	assessment of performance, report, presentation	x
Second research project or traineeship	15	assessment of performance, report, presentation	x
Colloquium	10	report, presentation	
Workshops in Molecular Chemistry	5	attendance, performance	x
Reaction Mechanisms	5	written examination	
Structure Determination with Spectroscopic Methods	5	written examination ?	
Organic Synthesis: Methods and Strategy 1	5	written examination	
Final examination in Molecular Chemistry	5	oral examination	
Optional courses in Molecular Chemistry	25	see appendix D	see app. D

#### Specialization Polymer Science

module	ECTS		practical
Research Project in Polymer Science	30	assessment of performance, report, presentation	x
Second research project or traineeship	30	assessment of performance, report, presentation	x

Colloquium	10	report, presentation	
Polymer Science Lab 3	5	report	x
Thermodynamics of Polymer Systems	5	written examination	
Advanced Polymer Characterization	5	report	x
Advanced Polymer Science	5	written examination	
Biomaterials 2	5	written examination	
Colloid Chemistry	5	written or oral examination	
Polymer Physics	5	written examination	
Polymer Surfaces and Interfaces	5	written examination	
Structure and Properties of Polymers	5	written examination	
Optional Courses in Polymer Chemistry	5	see appendix D	see app. D

### Specialization Science, Business and Policy

module	ECTS	assessment	practical
Modules in one of the fields Chemical Physics, Molecular Chemistry, Polymer Science to be determined on individual basis	30	as indicated for the corresponding specialization	as indicated for the corresponding specialization
Master research / thesis	30	assessment of performance, report, presentation	
Course Science, Business and Policy	20	assignment, exam	
Internship Science, Business and Policy	40	assessment of performance, reports	

### Appendix D Optional modules (art. 2.4)

#### Optional courses in Chemical Physics

module	ECTS	assessment	practical
Caput theoretical Chemistry	5	written examination	
Computational Methods in Quantum Chemistry	5	assignments	x
Computational Physics	5	assignments	x
Lasers in Nanoscience	5	written examination	
Magnetism and Conductivity	5	written examination	
Mesoscopic Physics	5	written examination	
Molecular Dynamics	5	assignments, reports, presentation	
Molecular Quantum mechanics	5	written examination	
Non Linear Optics	5	written examination	
Device Physics	5	written examination	
Physics of Lasers	5	written examination	
Solid State Phase Transitions	5	written examination	
Solid State Physics 1	5	written examination	
Surfaces and Interfaces	5	written examination	

#### Optional courses in Molecular Chemistry

module	ECTS	assessment *)	practical *)
Coordination Chemistry	5	written examination	
Organometallic Chemistry	5	written examination, discussion	
Organic Synthesis: Methods and Strategy 2	5	written examination	
Supramolecular Chemistry	5	written examination	
Organic Materials	5	written examination	
Industrial Homogeneous Catalysis	5	written examination	
Stereochemistry	5	written examination	

