

<b>Module:</b> Chemistry of Metals			
<b>University/Department/Institute:</b> Freie Universität Berlin/Department of Biology, Chemistry, Pharmacy/Institute of Chemistry and Biochemistry			
<b>Module supervisors:</b> Lecturers of the module			
<b>Entrance Requirements:</b> none			
<b>Goals of Qualification:</b> Students have basic knowledge of the chemistry of metals and are able to apply it. They have mastered the nomenclature and know important chemical classes and their reactions and the relevance of metals and metallic compounds to industry, technology and the environment. They have basic knowledge of the theories for the description of complex compounds. They are able to work independently and in groups to solve assignments relating to the discussed topics.			
<b>Contents:</b> Metals and salts, occurrence, characteristics, synthesis, application and compounds of the elements in the periodic system groups 1-14 and of lanthanides, general and typical characteristics of transition metals, special topics (e.g. steel manufacture, the biochemistry of iron, the biochemistry of cobalt, catalysis, the photographic process, dry-cell battery), complex compound chemistry, specific ligands, organometallic chemistry. In the tutorials skills provided by the lecture are repeated and deepened by exercises.			
Teaching methods	Hours of attendance (Hours per week)	Forms of active participation	Workload (hours)
Lectures	3	-	Presence (L) 45 Pre-, post-preparation (L) 45
Tutorials	1	Solving assignments, Contributions to topic related discussions	Presence (T) 15 Pre-, post-preparation (T) 15 Exam preparation and examination 30
<b>Language offer of lecture</b>		German	
<b>Compulsory regular attendance</b>		Attendance is recommended	
<b>Workload (total)</b>		150 hours	5 CP
<b>Length of module</b>		One semester	
<b>Examination</b>		Exam (120 minutes); The exam can also be conducted electronically	
<b>Lecture is offered</b>		Every summer semester	
<b>Applicability</b>		Bachelor study program Chemistry, Bachelor study program Chemistry for teachers in training, 60-CP-Module offer Chemistry	