Module: Bioinorganic Chemistry

**University/department/institute:** Freie Universität Berlin/Department of Biology, Chemistry and Pharmacy/Institute of Chemistry and Biochemistry

Responsible for the module: module lecturers

Admission requirements: none

**Qualification aims**: The students are familiar with the role of metals and metal proteins in life processes. They have also deepened their knowledge of modern aspects of bioinorganic chemistry.

**Content**: Development of the contemporary environment; biological function of main group elements; transition metals in biological systems; ion pumps; ion channels; ligands in biological systems; iron as an important element in biology; zinc proteins; metals at the core of photosynthesis and nitrogen fixation; molybdenum and cobalt enzymes; biomineralization and biomaterials; modern aspects of bioinorganic chemistry

Teaching and learning units	Attendance (Semester hours per week = SH)	Forms of active participation	Study time (hours)	
Lecture I	2	-	Attendance L I	30
			Preparation and follow-up L I	45
			Attendance L II	15
	_		Preparation and follow-up L	30
Lecture II	1		l II	
			Examination preparation,	30
			examination	
Language of instruction		German or English		
Compulsory regular attendance		Attendance recommended		
Study time, total hours		150 hours		5 CP
Duration of module		One semester		
Module offered		Every other semester		
Application		Master's program in Chemistry		