

2. Topic area Inorganic Chemistry

Module: Applied Radiochemistry and Radiation Protection Course			
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: Module: Principles of Radiochemistry			
Qualification aims: The students have deepened their knowledge of dealing with radioactive materials and of the legal radiation protection regulations for working with open radioactive materials and sealed radioactive sources. They have mastered facts about radiochemistry and the search for solutions in the measurement of radioactive radiation. They have all the theoretical principles to gain the expert qualifications for appointment as radiation protection officers of groups 2.2, 4.1, and 4.2.			
Content: Scientific principles of radiation protection; biological radiation effects, working with open radioactive materials; radiation protection law; dosimetry; structural radiation protection; dealing with radioactive waste; radiation protection calculations; practical operation of instrumentation to detect ionizing radiation; decontamination; practical application of radioactive compounds in science and technology; measuring alpha, beta and gamma radiation and calculations for practical radiation protection			
Teaching and learning units	Attendance (Semester hours per week = SH)	Forms of active participation	Study time (hours)
Lecture	5 days of 6 clock hours each	-	Attendance L 30 Preparation and follow-up L 30 Attendance sP 40 Preparation and follow-up sP 20
Safety-relevant practical	1 week full-time	Carrying out practical experiments and documentation	Examination preparation, examination 30
Language of instruction		German	
Compulsory regular attendance		Lecture: yes; practical: yes	
Study time, total hours		150 hours	5 CP
Duration of module		Two-week block	
Module offered		Every semester	
Application		Master's program in Chemistry	