







## MOBILITY SCHEME AND CONTENT OF THE ASC MASTER'S COURSE

ASC Master 	2 Year Curriculum-Teaching in English			
	Semester 1 Common Core courses (30 ECTS)	Semester 2 Orientation Courses (30 ECTS)	Semester 3 Specialisation Courses (30 ECTS)	Semester 4 Research Project (30 ECTS)
			Internship and transferable skills 10 ECTS Forensic chemistry 5 ECTS Multivariate analysis in chemistry 5 ECTS Advances in spectroscopic characterisation of nanomaterials 5 ECTS Spectroscopic methods for characterization and imaging of biomaterials 5 ECTS Quantum-chemical molecular modeling 10 ECTS	SPECTROSCOPY OF NANO- AND BIOMATERIALS
		Synchrotron radiation and its applications 5 ECTS Physical Organic Chemistry 5 ECTS Structural Inorganic Chemistry 5 ECTS Molecular structure of liquid Interfaces 5 ECTS Receptor Biochemistry 5 ECTS Selected topics of NMR spectroscopy 5 ECTS Highlights in natural products synthesis 5 ECTS Surface spectroscopy: methods and applications 5 ECTS Modern concepts in catalysis 5 ECTS Homogeneous Catalysis in Industry, Synthesis and Nature 5 ECTS Recent trends in Chemistry 5 ECTS Modern Methods in Theoretical Chemistry 5 ECTS Separation techniques and advanced „omics“ techniques 5 ECTS	Internship and transferable skills 10 ECTS Biochemical Approaches in Chemical Biology 5 ECTS Physical Chemistry of Clusters 5 ECTS Analytics of solid state surfaces 5 ECTS Bioorganic chemistry 5 ECTS Protein Crystallography 5 ECTS NMR on biosystems 5 ECTS Nano Structured Catalytic Systems 5 ECTS Computational Chemistry 5 ECTS Recent trends in Chemistry 5 ECTS Function Control at Complex Surfaces 5 ECTS Methods and procedures for trace analysis 5 ECTS	Spectroscopy in bio-organic  Surface Science and catalysis
	Quantum chemistry and chemical bonds 5 ECTS Nuclear magnetic resonance 5 ECTS Optical spectroscopy 5 ECTS English and professionalisation 5 ECTS X ray diffraction 5 ECTS Mass Spectrometry 5 ECTS	Synchrotron radiation and its applications 5 ECTS Physical Organic Chemistry 5 ECTS Structural Inorganic Chemistry 5 ECTS Experimental method. in environmental sciences 5 ECTS Spectroscopy for Biology 5 ECTS Imaging and Chemometrics 5 ECTS Kinetics and reactivity in homogeneous and heterogeneous phases 5 ECTS	Internship and transferable skills 9 ECTS Time resolved spectroscopy 6 ECTS Molecular modelling 6 ECTS Electron Microscopy 3 ECTS X-Ray Absorption Spectroscopy 3 ECTS Advanced X-Ray Diffraction 3 ECTS Spectroscopic Imaging 3 ECTS Solid State Nuclear Magnetic resonance 3 ECTS Magnetic properties of Materials 3 ECTS Surface Analysis 3 ECTS Laser in Spectroscopy 3 ECTS	Spectroscopy for Solid State  Catalysis
			Internship and transferable skills 10 ECTS Laser spectroscopy 5 ECTS Light scattering 5 ECTS Separation techniques 5 ECTS Structure and reactivity - Organic reactions 5 ECTS Green chemistry: Renewable materials and sustainable energy 5 ECTS Mathematical and numerical methods in theoretical chemistry 5 ECTS Computational chemistry 5 ECTS	Computational chemistry Atmospheric chemistry Green chemistry
		Synchrotron radiation and its applications 5 ECTS Physical Organic Chemistry 5 ECTS Structural Inorganic Chemistry 5 ECTS Fundamentals of Industrial Chemistry and Polymers 5 ECTS Environmental Chemistry 5 ECTS Applied Electrochemical Methods 5 ECTS Spectroscopic Identification of Organic Compounds 5 ECTS	Internship and transferable skills 10 ECTS Spectroscopy of condensed phases 4 ECTS Sustainable Industrial Chemistry and Polymers 4 ECTS X-ray Techniques and Operando Spectroscopy 4 ECTS High Resolution Molecular Spectroscopy 4 ECTS Spectroscopic Methods in Coordination Chemistry 4 ECTS Advanced Organic Chemistry 4 ECTS Time resolved spectroscopy in chemical processes 4 ECTS Theoretical and computational chemistry 4 ECTS Characterization of Polymers 4 ECTS Organic chemistry for nanotechnologies 4 ECTS Processing of Spectral Data in Analytical Chemistry 4 ECTS Sensors 4 ECTS	SUSTAINABLE CHEMISTRY  SPECTROSCOPY FOR ENERGY  SPECTROSCOPY OF FLUID AND CONDENSED PHASES

Mandatory units  
Free Choice or Optional Units