Study Plan (AIMS)

Specialisation: Spectroscopy and Imaging

Name:_____ Year of Enrollment:_____

Matricle Number:_____ Mentor:_____

1st Semester					30 CP
		planned	Module	CP	Achieved CP
Foundations 1.-2. Semester **26 CP (total)**	Compulsory	x	Introduction to AIMS	5 (comp.)	
		x	Mathematics for Engineers A	8 (comp.)	
		x	Programming in Python and Python Lab	8 (comp.)	
Specialisation **Spectroscopy and Imaging** 1.-3. Semester **37 CP (total)**	Compulsory Elective (16-20 CP)		Biophysical Chemistry	8 (comp. elective)	
			Modern Optical Methods and Imaging	8 (comp. elective)	
			*Solar and Chemical Energy Conversion**	8 (comp. elective)	
			Physical Biology of the Cell	10 (comp. elective)	
			Chemometrics	6 (comp. elective)	
			Theoretical Spectroscopy	8 (comp. elective)	
			Machine Learning in Computational Chemistry	8 (comp. elective)	
			A) Sum of achieved CP for Specialisation		

*Frequency of courses: lectures: irregularly; practical course: every semester

2nd Semester					30 CP
		planned	Module	CP	Achieved CP
Foundations 1.-2. Semester **26 CP (total)**	Compulsory	x	Scientific Software Engineering – Lab	5 (comp.)	
Advanced Machine Learning and AI 2.-3. Semester **15 CP (total)**	Comp. Elective		Introduction to Machine Learning	5 (comp. elective)	
			Pattern Recognition	5 (comp. elective)	
			Computer Lab Pattern Recognition	5 (comp. elective)	
			Deep Learning Lab	5 (comp. elective)	
			Methods of Uncertainty Analysis and	5 (comp. elective)	
Specialisation **Spectroscopy and Imaging** 1.-3. Semester **37 CP (total)**	Basic Module (5 CP)	x	Molecular Spectroscopy	5 (comp.)	
	Compulsory Elective (16-20 CP)		*Solar and Chemical Energy Conversion**	8 (comp. elective)	
			Sophisticated Imaging	10 (comp. elective)	
			B) Sum of achieved CP for Specialisation		
Key Qualifications 1.-3. Semester **12 CP (total)**	Comp. Elective		Elective Modules	7 (comp. elective)	

*Frequency of courses: lectures: irregularly; practical course: every semester

3rd Semester					30 CP
			Module	CP	
Advanced Machine Learning and AI 2.-3. Semester **15 CP (total)**	Comp. Elective	planned			Achieved CP
			Pattern Recognition (offered in German in winter term)	5 (comp. elective)	
			Computer Lab Pattern Recognition	5 (comp. elective)	
Specialisation **Spectroscopy and Imaging** 1.-3. Semester **37 CP (total)**	Compulsory Elective (16-20 CP)		Biophysical Chemistry	8 (comp. elective)	
			Modern Optical Methods and Imaging	8 (comp. elective)	
			*Solar and Chemical Energy Conversion**	8 (comp. elective)	
			Physical Biology of the Cell	10 (comp. elective)	
			Chemometrics	6 (comp. elective)	
			Theoretical Spectroscopy	8 (comp. elective)	
			Machine Learning in Computational Chemistry	8 (comp. elective)	
			C) Sum of achieved CP for Specialisation		
			37 CP - (A + B + C) = CP Research Lab (12-16 CP)		
		x	Research Lab	12-17 (elective)	
Key Qualifications 1.-3. Semester **12 CP (total)**	Comp. Elective	x	Ethics and Epistemology	5 (comp.)	
			Elective Modules	7 (comp. elective)	

*Frequency of courses: lectures: irregularly; practical course: every semester

4th Semester				30 CP
		Module	CP	
Master Thesis 4. Semester **30 CP**	Compulsory	x	Master Thesis in AIMS	30 (comp.)	

Date:_____ Signature Student:_____

Signature Mentor:_____