

Semester	WS 1 <sup>st</sup>			SS 2 <sup>nd</sup>			WS 3 <sup>rd</sup>			Credits	Exam
	L	E	P	L	E	P	L	E	P		
<b>1. Mandatory Courses</b>											
• Chemistry/Biochemistry	2	-	1							5.0	GR
• Biology/Molecular Biology	2	-	1							5.0	GR
• Anatomy	3	-	1							5.0	GR
• Physiology	1	0,5	0,5	1	0,5	0,5				5.0	GR
• Control Engineering	1,5	1	0,5							5.0	GR
• Mechanics/Biomechanics	2	2	-							5.0	GR
• Methodical Design/Project Management				1	-	2				5.0	GR
• Materials Science & Processing(Biomaterials)				3	1	-				5.0	GR
• Fluid Mechanics				2	2	-				5.0	GR
• Medical Imaging (Imaging Techniques)				2	1	1				5.0	GR
• Ethics/Intellectual Property and Reg. Affairs				2	-	1				5.0	GR
• Internship (min. 4 weeks)						x				5.0	P/NP
• Image Processing and Management							2	1	-	5.0	GR
• Image Guided Therapy/ Molecular Imaging							2	0,5	0,5	5.0	GR
• Art. Organs I: Heart, Lung							2	-	1	5.0	GR
• Art. Organs II: Kidney and Liver support							2	-	1	5.0	GR
• Cell Culture and Tissue Engineering							2	-	2	5.0	GR
• Biomedical Sensors and Microsystems							2	1	-	5.0	GR
<b>Reserve and Elective Courses</b>											
• Mathematics	2	2	-				-	-	-	5.0	GR
• Physics for Biomedical Engineering	2	1	-				-	-	-	5.0	GR
• Mechanics of living tissue	2	1	-				2	1	-	5.0	GR
• Medical Statistics	1	2	-				1	2	-	5.0	GR
• Experimental Medicine (Biom. Diagnostics)				2	1	-				5.0	GR
• Electrical Engineering				2	2	-				5.0	GR
• Prep-course in Mathematics	1	1	-				-	-	-	3.0	-
• Neurosciences	1	-	-				1	-	-	2.0	-
• Immunology and Microbiology	2	-	-				2	-	-	3.0	-
• Bioinformatics	2	1	-				-	-	-	5.0	GR
• Hard Tissue Implants and Protheses/Biomaterials Research	-	-	-				1	-	1	3.0	-
• Systems Biology				2	-	2				5.0	GR
• Special aspects of Artificial Organs				1	-	-				2.0	-
• Intensive Care / Monitoring				05	-	0.5				2.0	-
• Seminar and Journal Club on Mol. Imaging				2	-	-				3.0	-
<b>Language Courses</b>											
German Courses ( till B1 level)	-	4	-	-	4	-				8.0	P/NP
<b>Master's Thesis (4<sup>th</sup> semester)</b>											
Master Thesis										25.0	GR
Master Thesis Colloquium										5.0	GR