

Semester	1st			2nd			3rd			Credits	Exam
	L	E	P	L	E	P	L	E	P		
Courses											
Chemistry/Biochemistry	2	-	1							5.0	GR
Medical Biology	2	-	1							5.0	GR
Anatomy/Physiology	2	1	1							5.0	GR
Control and Electrical Engineering	2	2	-							5.0	GR
Mechanics/Biomechanics/Fluid Mechanics	2	2	-							5.0	GR
Elective Course	x	x	x							5.0	GR
Medical Imaging (Imaging Techniques)				2	-	2				5.0	GR
Material Science and Processing (Biomaterials)				3	1	-				5.0	GR
Ethics/Intellectual Property and Reg. Affairs				2	-	1				5.0	GR
Internship(min. 8 weeks)						x				10.0	GR
Elective Course				x	x	x				5.0	GR
Image Guided Therapy/Molecular Imaging							2	0.5	0.5	5.0	GR
Image Processing and Handling							2	1	-	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
Sytems Biology							2	-	2	5.0	GR
<u>Elective Mandatory Course</u>											
Biomedical Sensors and Microsystems*	2	1	-				2	1	-	5.0	GR
Mechanics of living tissue*	2	2	-				2	2	-	5.0	GR
Medical Statistics*	2	2	-				2	2	-	5.0	GR
Immunology and Microbiology*	2	-	1				2	-	1	5.0	GR
Bioinformatics*	2	1	-				-	-	-	5.0	GR
Experimental Medicine (Biom. Diagnostics)				2	1	-				5.0	GR
Biomechanics and Mechanobiology for soft biological tissues				1	1					5.0	GR
Methodical Design/ Project Management				1	-	2				5.0	GR
Optophysiology				2	2	-				5.0	GR
<u>Optional Courses</u>											
Hard Tissue Implants and Protheses/Biomaterials Rese							2	-	1	5.0	P/NP
Selected Topics of Inelasticity Theory	2	2	-				2	2	-	6.0	GR
Tensor Algebra and Tensor Analysis for Eng. Stud	2	2	-				2	2	-	5.0	GR
Neurosciences	1	-	-	1	-	-	1	-	-	2.0	GR
MATLAB				-	1	-				2.0	-
Special aspects of Artificial Organs				1	-	-				2.0	-
Continuum Mechanics				2	1	-				5.0	GR
Porous Media Mechanics				2	2	-				6.0	GR
Intensive Care / Monitoring				0.5	-	0.5				2.0	-
Seminar and Journal Club on Mol. Imaging				2	-	-				3.0	-
Master Thesis (4th Semester)											
Master Thesis										25.0	GR
Master Thesis Colloquium										5.0	GR

* Elective Mandatory Courses could be chosen in first (or third) semester as well as Optional Courses.