

Study programme M.Sc. Human Technology in Sports and Medicine (M.Sc. TSM)
Examination regulations by: 2007/04/01 in its respectively valid version
Valid for: Students who started winter term semester 2016/17
Version: July 2016

Module	SRS	Courses (type of class)	SHW	CP ¹ /WLH
TSM1	1.	Basics I – Mathematics & Physics 1.1 Seminar: Mathematics and physics (SE) 1.2 Tutorial: Mathematics and physics (TUT)	4 2 2	6/180
TSM2	1.	Basics II – Biomechanics 2.1 Seminar: Biomechanics (SE) 2.2 Seminar: Mechanobiology (SE) 2.3.Seminar: Ergonomy (SE) 2.4. Tutorial: Biomechanics and Mechanobiology (TUT)	8 2 2 2 2	10/300
TSM3	1.	Basics III – Data management &-analysis 3.1 Seminar: Data management/programming (SE) 3.2 Statistics lecture series (LEC) 3.3 Seminar: Advanced statistics (TUT) 3.4 Tutorial: Data management/programming (TUT)	6 2 1 1 2	8/240
TSM4	1.	Basics IV – Material & construction 4.1 Seminar: Materials and construction (SE) 4.2 Tutorial: Materials and construction (TUT)	4 2 2	6/180
TSM5	2.	Technology I - Orthopaedic technologies (orthopaedic aids, prostheses, orthoses, exo skeletons, robots, joint replacements) 5.1 Seminar - Orthopaedic aids (SE) 5.2 Seminar: Joint replacements and implants (SE)	4 2 2	6/180
TSM6	2.	Technology II - Footwear, apparel and playing surfaces 6.1 Seminar: Footwear and playing surfaces (sports and rehabilitation)(SE) 6.2 Seminar Apparel (sports and rehabilitation) (SE) 6.3 Seminar: Management (SE)	6 2 2 2	6/180
TSM7	2.	Technology III - Sports equipment and instrumentation 7.1 Seminar: Instrumentation technology (SE) 7.2 Seminar: Sports and rehabilitation equipment (SE)	4 2 2	6/180
TSM8	2.	Technology IV - Modeling and simulation 8.1 Seminar: Multi body modeling (SE) 8.2 Seminar: Finite element modeling (SE)	4 2 2	6/180
TSM9	2.	Technology V - Performance diagnostics in sports, medicine and rehabilitation 9.1 Seminar: Biomechanical and physiological diagnostics (SE) 9.2 Tutorial: Biomedical diagnostics (TUT)	4 2 2	6/180
TSM10	3.	Research methods and application 10.1 Seminar: Ethics, technology and research in humans (SE) 10.2 Seminar: Research methods (SE)	4 2 2	6/180
TSM11	3.	Project I - Sports technology project – applied research methods 11.1-I Seminar: Applied research methods (SE) 11.2-I Project: Sports technology OR Project II -Technology in medicine project – applied research methods 11.1-II Seminar: Applied research methods (SE) 11.2-II Project: Medical technology	8 2 6 8 2 6	12/360
TSM12	3.	Internship (> 12 weeks)		12/360
TSM13	4.	Master Thesis 13.1 Seminar: Scientific paper writing (SE) 13.2 Thesis	2 2	30/900
Total			58	120/3600

Abbreviations: TSM = Human Technology in Sports and Medicine, SRS = subject-related semester, SHW = semester hours per week, CP = credit points, WLH = workload hours, LEC = lecture, SE = seminar, TUT = exercise/tutorial, FT = field trip

Comments: The specifications regarding the academic performances and examination results as well as the attendance requirements are listed in the module handbook.
¹ A credit point corresponds to a workload of 30 hours, which can be achieved by attendance of lectures, seminars and courses as well as by means of self-study (e.g. preparatory- and follow-up work, tutorials etc.).