Curriculum schedule

Deutsche Sporthochschule Köln
German Sport University Cologne

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 first-year students: Winter term 2016/17 onward

Version: July 2016

Module	SRS	Courses (type of class)	SHW	CP[1]/WLH
TSM1	**1.**	**Basics I – Mathematics & Physics**	**4**	**6/180**
		Mathematics and physics (SE)	2	
		Mathematics and physics (TUT)	2	
TSM2	**1.**	**Basics II – Biomechanics**	**8**	**10/300**
		Biomechanics (SE)	2	
		Mechanobiology (SE)	2	
		Ergonomy (SE)	2	
		Biomechanics and Mechanobiology (TUT)	2	
TSM3	**1.**	**Basics III – Data management &-analysis**	**6**	**8/240**
		Data management/programming (SE)	2	
		Statistics lecture series (LEC)	1	
		Advanced statistics (TUT)	1	
		Data management/programming (TUT)	2	
TSM4	**1.**	**Basics IV – Material & construction**	**4**	**6/180**
		Materials and construction (SE)	2	
		Materials and construction (TUT)	2	
TSM5	**2.**	**Technology I - Orthopaedic technologies** (orthopaedic aids, prostheses, orthoses, exo skeletons, robots, joint replacements)	**4**	**6/180**
		Orthopaedic aids (SE)	2	
		Joint replacements and implants (SE)	2	
TSM6	**2.**	**Technology II - Footwear, apparel and playing surfaces**	**6**	**6/180**
		Footwear and playing surfaces (sports and rehabilitation)(SE)	2	
		Apparel (sports and rehabilitation) (SE)	2	
		Management (SE)	2	
TSM7	**2.**	**Technology III - Sports equipment and instrumentation**	**4**	**6/180**
		Instrumentation technology (SE)	2	
		Sports and rehabilitation equipment (SE)	2	
TSM8	**2.**	**Technology IV - Modeling and simulation**	**4**	**6/180**
		Multi body modeling (SE)	2	
		Finite element modeling (SE)	2	
TSM9	**2.**	**Technology V - Performance diagnostics in sports, medicine and rehabilitation**	**4**	**6/180**
		Biomechanical and physiological diagnostics (SE)	2	
		Biomedical diagnostics (TUT)	2	
TSM10	**3.**	**Research methods and application**	**4**	**6/180**
		Ethics, technology and research in humans (SE)	2	
		Research methods (SE)	2	
TSM11	**3.**	**Project I - Sports technology project – applied research methods**	**8**	**12/360**
		Applied research methods (SE)	2	
		Sports technology	6	
		OR		
		Project II -Technology in medicine project – applied research methods		
		Applied research methods (SE)	2	
		Medical technology	6	
TSM12	**3.**	**Internship (> 12 weeks)**		**12/360**
TSM13	**4.**	**Master Thesis**	**2**	**30/900**
		Scientific paper writing (SE)	2	
		Thesis		
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.).