

Master of Science (Technology)

Master's Programme in Biomedical Engineering: Signal and Image Processing

120 ECTS, 2 years, curriculum 2017-2019

			1st autumn		1st spring		2nd autumn		2nd spring	
Code	Title	ECTS	1	2	3	4	1	2	3	4
Compulsory Studies 57 ECTS cr										
521242A	Introduction to Biomedical Engineering	5	5							
521149S	An Introduction to Computer Vision Methods for Biomedical Images	5	5							
900017Y	Survival Finnish Course	2	2							
521149S	Function and Analysis of Cardiovascular System	5		5						
521273S	Biosignal Processing I	5		5						
041201A	Basics in eHealth	5			5					
521289S	Machine Learning	5			5					
521093S	Biomedical Instrumentation	5			5					
521282S	Biosignal Processing II	5				5				
080925A	Anatomy and Physiology for Biomedical Engineering	5				5				
521285S	Affective Computing	5					5			
521284S	Biomedical Engineering Project	5					2.5	2.5		
Recommended Optional Studies 30 ECTS cr										
521156S	Towards Data Mining	5	0				0			
031025A	Introduction to Optimization	5	0				0			
521348S	Statistical Signal Processing	5	0				0			
080927S	Connected Health and mHealth	5					0			
521279S	Signal Processing Systems	5		0				0		
521240S	Biophotonics and Biomedical Optics	5		0				0		
521161S	Multi-modal Data Fusion	5		0				0		
900013Y	Beginners' Finnish Course 1	3		0				0		
521124S	Sensors and Measuring Techniques	5		0				0		
080920S	Diagnostic Imaging	5		0				0		
900053Y	Beginners' Finnish Course 2	5			0	0	0	0	0	0
521337A	Digital Filters	5			0				0	
521466S	Machine Vision	5			0				0	
521495A	Artificial Intelligence	5			0				0	
521097S	Wireless Measurements	5			0				0	
080916S	Biomechanics of Human Movement	5			0				0	
521288S	Multiprocessor Programming	5			0	0			0	0
521493S	Computer Graphics	7				0				0
521283S	Big Data Processing and Applications	5				0				0
080926A	Introduction to Biomedical Imaging Methods	1 - 3				0				0
521149S	Special Course in Information Technology	5 - 8	0	0	0	0	0	0	0	0
Common Compulsory Studies, 33 ECTS cr										
521013A	Advanced Practical Training	3				3				
522987S	Master's Thesis in Biomedical Engineering	30						10	10	10
Compulsory Studies in Total			12	10	15	13	7.5	12.5	10	10
Optional Studies in Total			3	5	0	2	7.5	2.5	5	5
Credits/period			15	15	15	15	15	15	15	15
Credits/semester			30		30		30		30	
Credits/academic year			60				60			