

# 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
<b>Compulsory Studies 57 ECTS cr</b>										
<a href="#">52XXXXA</a>	Introduction to Biomedical Engineering	5	5							
<a href="#">521149S</a>	Function and Analysis of Cardiovascular System	5	5							
<a href="#">900017Y</a>	Survival Finnish Course	2	2							
<a href="#">521149S</a>	An Introduction to Computer Vision Methods for Biomedical Images	5		5						
<a href="#">521273S</a>	Biosignal Processing I	5		5						
<a href="#">041201A</a>	Basics in eHealth	5			5					
<a href="#">521289S</a>	Machine Learning	5			5					
<a href="#">521093S</a>	Biomedical Instrumentation	5			5					
<a href="#">521282S</a>	Biosignal Processing II	5				5				
<a href="#">080925A</a>	Anatomy and Physiology for Biomedical Engineering	5				5				
<a href="#">521285S</a>	Affective Computing	5					5			
<a href="#">521284S</a>	Biomedical Engineering Project	5					2.5	2.5		
<b>Recommended Optional Studies 30 ECTS cr</b>										
<a href="#">521XXXS</a>	Multi-modal Data Fusion	5	0				0			
<a href="#">521XXXS</a>	Data Mining	5	0				0			
<a href="#">521279S</a>	Signal Processing Systems	5	0				0			
<a href="#">080927S</a>	Connected Health and mHealth	5	0				0			
<a href="#">031025A</a>	Introduction to Optimization	5	0				0			
<a href="#">521240S</a>	Biophotonics and Biomedical Optics	5	0				0			
<a href="#">900013Y</a>	Beginners' Finnish Course 1	3		0						
<a href="#">521124S</a>	Sensors and Measuring Techniques	5		0				0		
<a href="#">080920S</a>	Diagnostic Imaging	5		0				0		
<a href="#">900053Y</a>	Beginners' Finnish Course 2	5			0	0	0	0	0	0
<a href="#">521337A</a>	Digital Filters	5			0				0	
<a href="#">521466S</a>	Machine Vision	5			0				0	
<a href="#">521495A</a>	Artificial Intelligence	5			0				0	
<a href="#">521097S</a>	Wireless Measurements	5			0				0	
<a href="#">080916S</a>	Biomechanics of Human Movement	5			0				0	
<a href="#">521288S</a>	Multiprocessor Programming	5			0	0			0	0
<a href="#">521493S</a>	Computer Graphics	7				0				0
<a href="#">521283S</a>	Big Data Processing and Applications	5				0				0
<a href="#">521484A</a>	Statistical Signal Processing	5				0				0
<a href="#">080926A</a>	Introduction to Biomedical Imaging Methods	1 - 3				0				0
<a href="#">521149S</a>	Special Course in Information Technology	5 - 8	0	0	0	0	0	0	0	0
<b>Common Compulsory Studies, 33 ECTS cr</b>										
<a href="#">521013A</a>	Advanced Practical Training	3				3				
<a href="#">522987S</a>	Master's Thesis in Biomedical Engineering	30						10	10	10
<b>Compulsory Studies in Total</b>			<b>12</b>	<b>10</b>	<b>15</b>	<b>13</b>	<b>7.5</b>	<b>12.5</b>	<b>10</b>	<b>10</b>
<b>Optional Studies in Total</b>			<b>3</b>	<b>5</b>	<b>0</b>	<b>2</b>	<b>7.5</b>	<b>2.5</b>	<b>5</b>	<b>5</b>
<b>Credits/period</b>			<b>15</b>	<b>15</b>	<b>15</b>	<b>15</b>	<b>15</b>	<b>15</b>	<b>15</b>	<b>15</b>
<b>Credits/semester</b>			<b>30</b>		<b>30</b>		<b>30</b>		<b>30</b>	
<b>Credits/academic year</b>			<b>60</b>				<b>60</b>			