

University of Oulu
 Course Structure Diagram 2016-2018
 Master of Science (Technology)
 International Master's Programme in Biomedical Engineering: Signal and Image Processing (BME-SIP)
 (120 ECTS)

Code	Course	Scope	Recommended Time			
			1st year		2nd year	
			I. autumn	I. spring	2. autumn	2. spring
Basic Module, Compulsory Courses		56 ECTS cr				
521273S	Biosignal Processing I	5 ECTS cr	5			
521282S	Biosignal Processing II	5 ECTS cr		5		
521149S	Special Course in Information Technology	5 ECTS cr	5			
521284S	Biomedical Engineering Project	5 ECTS cr			5	
580402S	Biomedical Imaging Methods	5 ECTS cr		5		
764634S	Medical Physics and Imaging	6 ECTS cr	6			
041201A	Basics in eHealth	5 ECTS cr	5			
521285S	Affective Computing	5 ECTS cr			5	
521289S	Machine Learning	5 ECTS cr		5		
521093S	Biomedical Instrumentation	5 ECTS cr		5		
813621S	Research Methods	5 ECTS cr	5			
Recommended Optional Studies		31 ECTS cr	4	7	10	10
900017Y	Survival Finnish	2 ECTS cr	2	or	2	
900013Y	Beginner's Finnish I	3 ECTS cr	3	or	3	
900053Y	Beginner's Finnish II	5 ECTS cr		5	or	5
521279S	Signal Processing Systems	5 ECTS cr	5	or	5	
521124S	Sensors and Measuring Techniques	5 ECTS cr	5	or	5	
031025A	Introduction to Optimization	5 ECTS cr	5	or	5	
521240S	Biophotonics and Biomedical Optics	5 ECTS cr	5	or	5	
521288S	Multiprocessor Programming	5 ECTS cr		5	or	5
521337A	Digital Filters	5 ECTS cr		5	or	5
521493S	Computer Graphics	7 ECTS cr		7	or	7
521466S	Machine Vision	5 ECTS cr		5	or	5
521495A	Artificial Intelligence	5 ECTS cr		5	or	5
521283S	Big Data Processing and Applications	5 ECTS cr		5	or	5
521097S	Wireless Measurements	5 ECTS cr		5	or	5
521484A	Statistical Signal Processing	5 ECTS cr		5	or	5
764664S	Analysis and Simulation of Biosystems	6 ECTS cr		6	or	6
080916S	Biomechanics of Human Movement	5 ECTS cr		5	or	5
521149S	Special Course in Information Technology	5 ECTS cr				
Common Compulsory		33 ECTS cr				
521013A	Advanced Practical Training	3 ECTS cr		3		
522987S	Master's Thesis in Biomedical Engineering	30 ECTS cr			10	20
Semesters Total			30	30	30	30
Academic Year Total			60		60	