

University of Oulu
 Course Structure Diagram 2015-2017
 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	
			1. autumn	1. spring	2. autumn	2. spring
Basic Module, Compulsory Courses		57 ECTS cr				
521003P	Orientation Course for International CSE Students	1 ECTS cr	1			
521273S	Biosignal Processing I	5 ECTS cr	5			
521282S	Biosignal Processing II	5 ECTS cr		5		
521149S	Special Course in Information Technology: "Computer Vision Methods for Medical and Biomedical Images"	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		30 ECTS cr	3	7	10	10
900017Y	Survival Finnish	2 ECTS cr	2	or	2	
900013Y	Beginner's Finnish I	2 ECTS cr	2	or	2	
900053Y	Beginner's Finnish II	4 ECTS cr		4	or	4
521259S	Digital Video Processing	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	
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	