

Curriculum 2020-2021 for the students coming from the AIT
(14.1.2020)

Wireless Communications Engineering – Radio Access and Networks															
DD-WCE–RAN study option															
Code of the course	Name of the course	Course credits	Suggested timing												
			First year (at AIT)						Second year (at UOulu)						
			Fall	Spring	Summer			Fall	Spring	Summer					
			1	2	3	4	June	July	August	1	2	3	4	June	July
Obligatory Studies, Total 18 AIT crs + 45 ECTS crs															
AT77.02	Signals, Systems and Stochastic Processes	3	x												
AT77.04	Data Communications	3	x												
AT77.19	Optimization for Communications and Networks	3	x												
AT77.13	Digital Communications	3			x										
AT77.17	Network QoS	3			x										
AT77.07	Cellular Mobile Systems	3	x												
521324S	Statistical signal processing II	5											x		
521349S	Wireless Communications II	5											x		
521326S	Radio Engineering I	5													
521998S	Master's Thesis	30												x	
521362S	Electronics and Communications Engineering Seminar	0													x
521007S	Maturity Test for Master's Degree	0													x
Elective Studies, Total ≥ 7 AIT cr + 15 ECTS crs															
AT77.9019	Cross-Layer Design for Wireless Networks	3	x												
ATxx.xxxx	Internet of Things Technology and Design	3				x									
AT77.9009	Discrete-Time Statistical Signal Processing *	3			x										
AT77.18	Optical Networks	3			x										
AT80.9007	Seminar in Information and Communications	1					x								
AT77.11	Digital Modulation Techniques	3			x										
ATxx.xxxx	Wireless Technologies for Internet of Things	3	x												
900017Y	Survival Finnish Course I (on both semester) *	2								x			x		
900013Y	Beginner's Finnish Course I (on both semester)	3									x		x		
900053Y	Beginner's Finnish Course II	5											x		
521386S	Radio Channels *	5									x				
521369A	Simulations and Tools for Telecommunications *	5										x			
521327S	Radio Engineering II	6											x		
521377S	Communications Networks II *	7												x	
521388S	Antennas *	5												x	
521279S	Signal Processing Systems	5												x	
521322S	Telecommunication Engineering Project	5											x		
521300S	Electronics Design and Construction Exercise	6											x		
521318S	Modern Topics in Telecommunications and Radio Engineering	3-7												x	
521389S	Wireless Body Area Networks *	5												x	x
521097S	Wireless Measurements	5												x	
521225S	RF Components and Measurements	5													x
521401S	Electronics Design II	6									x				
521435S	Electronics Design III	6										x			
521405S	Electronic System Design	5										x			
521402S	Telecommunication Circuit Design	5										x			
521273S	Biosignal Processing	5											x		
521145A	Human Computer Interaction	5												x	
521279S	Signal Processing Systems	5												x	
521148S	Ubiquitous Computing Fundamentals	5											x		
521281S	Application Specific Signal Processors	5												x	
521140S	Computer Graphics	7													x
521290S	Distributed Systems	5												x	
521466S	Machine Vision	5													x
521044A	Social Computing	5													x
521260S	Programmable Web Project	5													x
521479S	Software Project	7													x

* recommended

AIT crs
ECTS crs

Master's Degree at AIT is 49 AIT crs. The first study year in DD-WCE study program is 25 crs which is 50 % of the whole study load at the AIT.

Master's Degree at UOulu is 120 ECTS crs. The second study year in DD-WCE study program is 60 crs which is 50 % of the whole study load at the UOulu.