

## Curriculum for the students coming from the AIT

<b>Wireless Communications Engineering – Radio Access and Networks</b>												
<b>DD-WCE–RAN study option</b>												
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	5	1	2	3	4	5
<b>Obligatory Studies, Total 28 AIT crs + 15 ECTS crs</b>												
AT77.02	Signals, Systems and Stochastic Processes	3	x									
AT77.04	Data Communications	3	x									
AT77.11	Digital Modulation Techniques	3	x									
AT77.19	Optimization for Communications and Networks	3	x									
AT77.09	Error Control Coding	3				x						
AT77.13	Digital Communications	3				x						
AT77.9009	Discrete-Time Statistical Signal Processing	3				x						
AT77.9019	Cross-Layer Design for Wireless Networks	3				x						
AT77.07	Cellular Mobile Systems	3						x				
AT80.9007	Seminar in Information and Communications	1						x				
521340S	Communication Networks I	5								x		
521326S	Radio Engineering I	5								x		
521324S	Communication Signal Processing I	5							o			
<b>Elective Obligatory Studies, Total 5 to 8 ECTS crs</b>												
521317S	Wireless Communications II	8							o			
	or											
521325S	Communication Signal Processing II	5								o		
	or											
521377S	Communication Networks II	7								o		
<b>Other Obligatory Studies, Total 30 ECTS crs</b>												
521998S	Master's Thesis	30									x	

AIT crs  
ECTS crs

If a student will perform at least 25 AIT crs (~55 ECTS crs) in his/her first study year (not later than 31.7.2019) he/she is entitled to a grant of 10000€ which will cover a tuition fee of the 2nd study year in the UOulu.

Elective Studies, Total ≥ 2 - 5 ECTS crs depending on elective obligatory studies									
900017Y	Survival Finnish Course I	2					x		
900013Y	Beginner's Finnish Course I	3					x		
900053Y	Beginner's Finnish Course II	5						x	
521337A	Digital Filters *	5						x	
521318S	Modern Topics in Telecommunications and Radio Engineering	3-7					x		
521388S	Antennas (even years)	5							x
521386S	Radio Channels (odd years)	5							x
521327S	Radio Engineering II	6						x	
521322S	Telecommunication Engineering Project	5					x		
521097S	Wireless Measurements	5						x	
521225S	RF Components and Measurements	5							x
521401S	Electronics Design II	6					x		
521435S	Electronics Design III	5						x	
521405S	Electronic System Design	5					x		
521402S	Telecommunication Circuit Design	5					x		
521300S	Electronics Design and Construction Exercise	6					x		
813621S	Research Methods	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	5							x
521290S	Distributed Systems	5						x	
521466S	Machine Vision	5						x	
521045S	Mobile Computing	5							x
521260S	Programmable Web Project	5							x
521044A	Social Computing	5							
521479S	Software Project	7					x		

o = video course or classes \* recommended