

**Curriculum for the students coming from the UoP**

**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 UoP)					Second year (at UOulu)					
			Fall		Spring		Summer	Fall		Spring		Summer	
			1	2	3	4	5	1	2	3	4	5	
<b>Obligatory Studies, Total 53 ECTS</b>													
EE 669	Optimization of Communication Systems	5		x									
EE 664	Random Signal Analysis in Communications and Signal Processing	5		x									
EE 663	Advanced Digital Communications	5		x									
EE 665	Data Networks	5		x									
EE 681	Microwave Communications	5		x									
EE 680	Wireless Communication Systems	5				x							
EE 683	Advanced Technologies in Telecommunications	5				x							
EE 686	Advanced Digital Signal Processing	5				x							
521324S	Communication Signal Processing I	5							o				
521317S	Wireless Communications II	8							o				
<b>Elective Obligatory Studies, Total 10 ECTS</b>													
521279S	Signal Processing Systems	5							x				
521325S	Communication Signal Processing II	5								o			
	or												
EE 687	Internetworking	3				x							
521377S	Communication Networks II	7								o			
<b>Other Obligatory Studies, Total 33 ECTS</b>													
TBD	Advanced Practical Training	3						x					
521998S	Master's Thesis	30									x		

If a student will perform at least 55 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 at UOulu.

Elective Studies, Total ≥ 24 ECTS									
EE685	Antenna Theory and Design* **	5		x					
EE 684	Telecommunication Regulation, Policy and Management	5	TBD						
EE 682	Optical Communication Systems	5	TBD						
900017Y	Survival Finnish Course I	2				x			
900013Y	Beginner's Finnish Course I	3				x			
900053Y	Beginner's Finnish Course II	5						x	
521318S	Modern Topics in Telecommunications and Radio Engineering	3-7						x	
521388S	Antennas ( <b>even years</b> )**	5							x
521386S	Radio Channels ( <b>odd years</b> )	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 Method	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	
521045S	Mobile Computing	5						x	
521044A	Social Computing	5							
521260S	Programmable Web Project	5						x	
521479S	Software Project	7				x			

o = video course or classes \* recommended \*\* alternative courses