

Educational Specialty: Engineering Physics

Master's Programme: “Wireless Networks and Devices” (on English)

Form of Education: [full time](#); [regular form](#), Duration: [3 Terms \(1.5 years\)](#)

Course	ETCS credits	Exam or Scores during the Term (E/T)	Total Hours (Lectures; Seminars; Practical Exercises) (L + S + P)
FIRST YEAR			
First Term (winter)			
Compulsory Courses			
Modulations and Coding in the Digital Communications	6	E	45 + 15 + 15
Wireless Networks and Protocols	4.5	E	45 + 15 + 0
Computer Practice in Communication Systems	4.5	T	0 + 0 + 45
Introductory Selectable Courses – 1 course with 5 ECTS credits (1/5)			
Introduction to Wireless Communications	5	E	30 + 30 + 0
Applied Electrodynamics for MSc. Students	5	E	30 + 30 + 0
Modern Physics for Engineers	5	E	60 + 0 + 0
Selectable Courses – 2 courses with 10 ECTS credits (2/10)			
Communication and information systems for data transfer	5	E	30 + 30 + 0
Mobile Radio-Channels	5	E	30 + 30 + 0
Microwave Measurements in Communications	5	E	30 + 0 + 30
Fixed and Mobile Satellite Communication Systems	5	E	30 + 15 + 15
Software Toolbox on MatLab for Communication Applications	5	T	30 + 0 + 15
Practical Programming on Visual C++	5	T	30 + 0 + 30
Management of the Communication Networks	5	T	30 + 30 + 0
One-term Course in Advanced Topics in Communications (winter)	5	T	30 + 30
Second Term (summer)			
Compulsory Courses			
Information and Statistics in the Wireless Communications	4.5	E	45 + 15 + 0
Microwave Communication Devices and Systems	6	E	45 + 15 + 15
Integrated Circuits and Devices for Wireless Networks	4.5	E	45 + 15 + 0

Laboratory Practice in Integrated Circuits and Devices for Wireless Networks	4.5	T	0 + 0+ 45
Selectable Courses – 2 courses with 10 ECTS credits (2/10)			
Processors in Wireless Communications	5	E	30 + 0 + 30
Antennas for Wireless Communication Systems	5	E	30 + 15 + 15
Optical networks and devices	5	E	45 + 15 + 0
Radio-Frequency Identification Devices (RFID's)	5	E	30 + 15 + 15
Security of the Communication Networks and Systems	5	E	30 + 30 + 0
Operational Systems and Open-Source Applications in the Communications	5	T	0 + 0+ 45
Electromagnetic Compatibility in Communications	5	T	30 + 15 + 0
Management of the Innovations	5	T	30 + 30 + 0
One-term Course in Advanced Topics in Communications (summer)	5	T	30 + 30
SECOND YEAR			
Third Term (winter)			
Compulsory M.Sc. Thesis			
MSc. Thesis	15	February (1st) / July (2nd)	
Selectable Practices – 1 practice with 15 ECTS credits (1/15)			
Educational Practice Wireless Networks and Devices	15	T	150
Individual training (<i>instead of the practice</i>)	15	T	150
Total: 90 ECTS credits; 8 Exams (E); 5 scores during the Term (T)			
Educational degree: Master in Engineering Physics – Wireless Network and Devices			