

| Educational Speciality: ENGINEERING PHYSICS Master's Programme: "Wireless Network and Devices" (on English) Form of Education: <u>full time</u> , Duration: <u>3 Terms</u> | | | |
|--|--------------|------------------------------------|---|
| Course | ETCS credits | Exam or Exam during the Term (E/T) | Total Hours (Lect+Seminars+ Practical Exerc.) |
| 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 Elective 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 |
| Elective Courses – 2 courses with 10 ECTS credits (2/10) | | | |
| Interfaces in the Wireless Communications | 5 | E | 30 + 0 + 30 |
| 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 |
| Creation of Toolbox on MatLab for Communication Applications | 5 | T | 0 + 0 + 45 |
| Practical Programming on Visual C++ | 5 | T | 30 + 0 + 30 |
| One-term Course in Advanced Topics in Communications (winter) | 5 | T | 30 + 30 |
| Optional Courses | | | |
| Management of the Communication Networks | 2 | T | 30 + 0 + 0 |
| 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 |

| Elective 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 |
| 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 |
| One-term Course in Advanced Topics in Communications (summer) | 5 | T | 30 + 30 |
| Optional Courses | | | |
| Management of the Innovations | 2 | T | 30 + 0 + 0 |
| SECOND YEAR | | | |
| Third Term (winter) | | | |
| Compulsory Courses | | | |
| MSc. Thesis | 15 | February (1) / July (2) | |
| Elective Courses – 1 practice with 15 ECTS credits (1/15) | | | |
| Educational Practice Wireless Networks and Devices | 15 | T | 150 |
| Individual Preparation of the Master Thesis (<i>instead of the practice</i>) | 15 | T | 150 |
| Total: 90 ECTS credits; 8 exams (E); 5 exams during the term (T) | | | |