Courses Winter Semester 2026 MSc Communication and Information Technology
Grouped according to FSPO 2025

The courses listed are from the Engineering Sciences, Computer Science and the Centre for Languages and Philology

Status 09.10.2026

Please address any questions to Dr. Sandra Mann

Course takes place
Still unclear, more information to follow
Course does not take place

Categories of courses

1. **On-Site-format**: The contents relevant to examinations are taught exclusively on site. In addition to organisational information, lecture recordings, additional materials for interested students and exercise materials can be made available on Moodle. The teaching of practical methods and techniques can be part of the teaching format. You must ensure that you can participate in the course on site.

2. **Combi-format**: The exam-relevant content is taught on-site and online. Teachers can post exam-relevant online learning materials on Moodle. The teaching of practical methods and techniques may be part of the teaching format. You must ensure that you can participate in the course on site.

3. **Hybrid-format**: The contents relevant to the examination are taught equally well both on-site and online. As a student, you have the choice between on-site or online participation. The lecturers can post exam-relevant online learning materials on Moodle. This teaching format does not usually teach practical methods and techniques. The lecturers decide whether people can switch between online and on-site participation during the semester.

4. **Online-format**: The contents relevant to the examination are taught exclusively online. The lecturers can post exam-relevant online learning materials on Moodle. As a rule, no practical methods and techniques are taught in this teaching format. On-site participation is not required.

Lectures	*Lecturer*	*CP*	*Format*
B COMPULSORY ELECTIVE AREA			
B1 CORE MODULES			
Information Theory	Fischer	6	On-site
Integrierte Analogschaltungen (WS) / Integrated Analog Circuits (SS)	Ortmanns	6	On-site
Introduction to Deep Learning	Karlen	5	On-site
Microwave System Design	Hitzler	6	On-site
B2 SPECIALISATION MODULES			
Advanced Optoelectronic Communication Systems	Michalzik	6	On-site
Algebraic Channel Coding	Schmidt	4	On-site
Appropriate Medical Device Design	Karlen	4	On-site
Circuit Design in Nanometer-Scaled CMOS Technologies	Ortmanns	5	On-site
Electronic System Design using C and System C	Schubert, Becker, Prokein	6	On-site
Embedded Security	Nölscher *(Computer Science)*	6	x
Fundamentals of Sustainable Development	Karlen, Justiz	3	On-site
Information Theory	Fischer	6	On-site
Integrated Broadband Circuits	Kissinger	6	Online
Integrierte Analogschaltungen (WS) / Integrated Analog Circuits (SS)	Ortmanns	6	On-site
Introduction to Deep Learning	Karlen	5	On-site
Introduction to Quantum Engineering	Braxmaier	4	On-site
Machine Learning for Dynamical Systems - NEW!	Beckers	6	On-site
Medical Wearables I	Karlen	5	On-site
Microwave System Design	Hitzler	6	On-site
Mixed-Signal CMOS Chip Design	Ortmanns	4	Online
Neuromorphic Engineering: Bio-inspired Sensing	Lenk	6	On-site
Propagation and Antennas	Hitzler	5	On-site
Quantum Sensing I	Braxmaier	4	On-site
RF-Design of Communication and Navigation Systems	Damm	5	On-site
Space-Based Radar	Villano	4	On-site
Terahertz Sensors	Damm	5	On-site
Thin Films	Herr	4	x
B3 SEMINARS			
Seminar Communications Engineering	Stern	3	On-site
Seminar High-Frequency Circuits in Silicon Technologies	Kissinger	3	On-site
Seminar Microelectronics	Ortmanns	3	On-site
Seminar on Biomedical Signal and Data Processing	Karlen	3	Combi
Seminar Research Trends Metamaterials and Metasurfaces	Damm	3	On-site
Seminar Research Trends Terahertz Technology and Applications	Damm	3	On-site
B4 PRACTICAL MODULES			
Lab Vector Network Analysis	Kissinger	5	On-site
Laboratory of Embedded Systems / Labor Eingebettete Systeme	Slomka *(Computer Science)*	6	
Praktikum - Halbleitertechnologie	Kissinger	5	On-site
Project Analog CMOS Circuit Design	Ortmanns	6	
Project Design of Integrated Systems	Ortmanns	6	On-site
Project High-Frequency Amplifier Design	Kissinger	6	On-site
Project High-Frequency Integrated Circuit Design	Kissinger	6	On-site
Project Medical Wearables	Karlen	6	Combi
Project Wireless Link Design	Hitzler	5	On-site
Projekt Automatisiertes Fahren	Buchholz	5	Combi
Projekt Dialogsysteme für Ingenieure	Minker	6	On-site
Projekt Internet Measurement I	Wendzel *(Computer Science)*	8	
C COMPLEMENTARY AREA			
C1 LANGUAGE SKILLS AND ELECTIVE KEY COMPETENCES			
Deutsch für Communication and Information Technology II - Kurs 1 (GER A1)	Husemann	4	
Deutsch für Communication and Information Technology II - Kurs 2 (GER A2)	Husemann	4	
Deutsch für Communication and Information Technology II - Kurs 3 (GER B1)	Husemann	4	
C2 INTERDISCIPLINARY COMPETENCES			
Design of Embedded Real-Time Systems / Entwurfsmethodik Eingebetteter Echtzeitsysteme	Slomka *(Computer Science)*	6	
Projectseminar Deep Learning Architectures /Projektseminar Deep Learning Architectures	Braun (Computer Science)	8	
Project Learning Robots / Projekt Learning Robots	Braun *(Computer Science)*	8	