

Module MA-INF 3202	Mobile Communication				
Workload 180 h	Credit points 6 CP	Duration 1 semester	Frequency every year		
Module coordinator	Prof. Dr. Peter Martini				
Lecturer(s)	Prof. Dr. Peter Martini, Dr. Matthias Frank				
Classification	Programme M. Sc. Computer Science		Mode Optional	Semester 2. or 3.	
Technical skills	Knowledge about key concepts of mobile communication including mobility management (both technology independent and technology dependent), knowledge about wireless technologies and their interaction with other protocol layers and/or other network technologies, ability to evaluate and assess scenarios with communication of mobile devices. In-depth understanding of communication paradigms of wireless/mobile systems and network elements, productive work in small groups, strengthening skills on presentation and discussion of solutions to current challenges				
Soft skills	Theoretical exercises to support in-depth understanding of lecture topics and to stimulate discussions, practical exercises in teamwork to support time management, targeted organisation of practical work and critical discussion of own and others' results				
Contents	Mobility Management in the Internet, Wireless Communication Basics, Wireless Networking Technologies, Cellular/Mobile Communication Networks (voice and data communication), Ad-hoc and Sensor Networks.				
Prerequisites	<b>Recommended:</b> Bachelor level knowledge of basics of communication systems (e.g. BA-INF 101 "Kommunikation in Verteilten Systemen" (German Bachelor Programme Informatik, English lecture slides available) and/or MA-INF 3105 – Principles of Distributed Systems				
Format	Teaching format	Group size	h/week	Workload[h]	CP
	Lecture	60	2	30 T / 45 S	2.5
	Exercises	30	2	30 T / 75 S	3.5
	T = face-to-face teaching; S = independent study				
Exam achievements	Oral exam (graded)				
Study achievements	Successful exercise participation (not graded)				
Forms of media					
Literature	<ul style="list-style-type: none"><li>• Jochen Schiller: Mobile Communications, Addison-Wesley, 2003</li><li>• William Stallings: Wireless Communications and Networking, Prentice Hall, 2002</li><li>• Further up-to-date literature will be announced in due course before the beginning of the lecture</li></ul>				