

Module title		Abbreviation
Computer Networks and Information Transmission		10-I-RIÜ-191-m01
Module coordinator		Module offered by
holder of the Chair of Computer Science III		Institute of Computer Science
ECTS	Method of grading	Only after succ. compl. of module(s)
10	numerical grade	--
Duration	Module level	Other prerequisites
1 semester	undergraduate	--
Contents		
<ul style="list-style-type: none"> • Computer networks and the Internet: Structure and Mechanisms of Telecommunication • Communication Protocols: Basic Principles and the Layer Model • Computer and Communication Systems: Network Systems, Data Traffic in Distributed Systems and inter-network Communication • The Internet: Important Protocols and Routing • Architecture and Structure of Computer Networks: Network Architecture, Access Mechanisms, Flow Control and Traffic Management • Coding Theory: Mechanisms for Error Detection and Error Correction • Information Theory: Entropy of Data • Digital Communication Systems: Signal Modulation 		
Intended learning outcomes		
Students command the technical, theoretical as well as practical knowledge to understand the structure of computer networks, the Internet and communication systems for telecommunication.		
Courses (type, number of weekly contact hours, language – if other than German)		
V (4) + Ü (2)		
Method of assessment (type, scope, language – if other than German, examination offered – if not every semester, information on whether module is creditable for bonus)		
written examination (approx. 60 to 120 minutes). If announced by the lecturer at the beginning of the course, the written examination may be replaced by an oral examination of one candidate each (approx. 20 minutes) or an oral examination in groups of 2 candidates (approx. 15 minutes per candidate). creditable for bonus		
Allocation of places		
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Additional information		
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Workload		
300 h		
Teaching cycle		
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Referred to in LPO I (examination regulations for teaching-degree programmes)		
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Module appears in		
Bachelor' degree (1 major) Computer Science (2019) Master's teaching degree Gymnasium MINT Teacher Education PLUS, Elite Network Bavaria (ENB) (2020) Supplementary course MINT Teacher Education PLUS, Elite Network Bavaria (ENB) (2020) Bachelor' degree (1 major) Aerospace Computer Science (2020) Bachelor' degree (1 major) Computer Science und Sustainability (2021)		

Bachelor' degree (1 major) Artificial Intelligence and Data Science (2022)
Bachelor' degree (1 major) Artificial Intelligence and Data Science (2023)
Bachelor' degree (1 major) Mathematics (2023)
Bachelor' degree (1 major) Artificial Intelligence and Data Science (2024)