



**Grundvorlesung:**

Perspektiven der Informatik  
Smolka: Programmierung 1  
Krüger: Grundlagen der Medieninformatik  
Bläser: Grundzüge der Theoretische Informatik  
Pau: Grundzüge von Algorithmen und Datenstrukturen  
Groves: Mfl 1  
Zähle: Mfl 3  
Lenhof: Bioinformatik 1  
Reineke: Einführung in Eingebettete Systeme  
Stock: Grundlagen der Cybersicherheit

**Proseminar:**

Tippenhauer: Physical-Layer Security  
Nürnberger: Low-Level Software Security  
Rossow: Malware  
Hack/Leißa: Rust  
Reineke/Hahn: Hardware Design  
Bläser: Berechenbarkeits- und Komplexitätstheorie

**Seminar:**

Klakow: Machine Learning for Natural Language Processing  
Horacek: Knowledge representation and domain ontologies  
Gebhard/König/Langer: How to make Computers Social (Interdisciplinary Seminar in Psychology and Artificial Intelligence)  
Zang: Data Privacy  
Künemann R.: Hands-on Protocol Verification  
Jacobs: Selected Topics in Formal Methods for Security  
Stock: Joint Advances in Web Security  
Krombholz: Usable Security  
Seidel H.P: 3D-Printing  
Hermanns: Advanced concurrency Theory  
Klusch/Nonnengart: Web Service Search and Composition  
Razniewski: Advanced Topics in Knowledge Bases  
Daiber/Degraen/Zenner: Sensing Virtual Reality: Practical Seminar on Dynamic Passive Haptics  
Smolka/Keller Wilfried: Foundations of Mathematics - An Introduction to Sets and Types  
Bergerhoff/Weickert: Advances in Image Processing and Computer Vision  
Reineke/Hahn: Hardware Design  
Mehlhorn/Vaz: Reading Group in Algorithms  
Tourret: Inductive Logic Programming: a Symbolic Approach to Machine Learning  
Sorge: Die elektronische Akte und der elektronische Rechtsverkehr - Technische und rechtliche Aspekte  
Sorge/Krüger/Vogelgesang: Strafrechtliche Betrachtung von Cyberangriffen  
Wahlster/Feld/Klusch/Reyes: Applied Deep Learning in the Automotive Industry and Industry 4.0  
Dittrich: Machine Learning for Big Data Systems

**Freie Leistungspunkte:**

Klakow: Softwareprojekt Neural Networks  
Spurk: Unixkurs  
Zeller: Ringvorlesung Cybersecurity (Pflicht für Master Cybersecurity)

**Core lectures:**

Druschel/Gummadi/Garg: Distributed Systems  
Dittrich: Database Systems  
Cremers: Security  
Steimle: Human Computer Interaction  
Herfet: Telecommunications 1  
Slusallek: Computer Graphics  
Weidenbach: Automated Reasoning  
Schiele: Machine Learning  
Hermanns: Verification  
Seidel R. Algorithms and Data Structures  
Hack: Compiler Construction  
Feldmann: Data Networks

**Advanced course:**

Schiele: Probabilistic Graphical Models and their Applications  
Klakow: Neural Networks: Implementation and Application  
Demberg: Statistik mir R  
Loos: Project Management and Execution  
Herfet: Future Media Internet  
Torralba: AI Planning  
Reineke: Stati cProgram Analysis  
Ochs: Convex Analysis and Optimization  
Darulova/Christakis: Program Analysis  
Fritz: Machine Learning in Cybersecurity  
Gummadi/Gomez Rodriguez: Human-centered Machine Learning  
Zeller: Generating Software Tests  
Bugiel: Mobile Security  
Döttling: Advanced Public Key Encryption  
Finkbeiner: Automata, Games, and Verification  
Sorge: Recht der Cybersicherheit - Datenschutz  
Dell/Bringmann: Multivariate Algorithmics  
Amiri/Oh/Rosenbaum: Algorithms on Directed Graphs  
Lenzen/Wiederhake: Theory of Distributed Systems  
Antoniadis/Künemann: Randomized and Approximation Algorithms  
Peter: Differential Equations in Image Processing and Computer Vision  
Peter: Image Acquisition Methods  
Augustin: Interpolation and Approximation for Visual Computing  
Rossow: Malware Analysis and Intrusion Detection  
Myszkowski: Perception for Computer Graphics