

## Elective Courses for the Winter Semester 2018/2019

The following list may be incomplete, since the Computer Science Departments 3,5, and 6 as well as the group of Paolo Bientinesi did not attend the presentation. Please check with the group websites if they offer courses this semester.

### Theoretical Computer Science

Lecture	Degree Program	Group	Lecturer
Complexity Theory	Bachelor, Master	Informatik 7	Prof. Grohe
Graph Decompositions and Algorithmic Applications	Master	Informatik 7	Prof. Grohe
Infinite Computations and Games	Master	Informatik 7	Prof. Löding
Stochastic Games	Master	Informatik 7	Prof. Löding
Logic and Games	Master	Informatik 7	Prof. Grädel
Algorithmic Graphtheory	Master	Informatik 1	Prof. Unger
Effiziente Algorithmen	Bachelor	Informatik 1	Prof. Woeginger, Prof. Unger, Prof. Rossmann
Parametrisierte Algorithmen	(Bachelor?), Master	Informatik 1	Prof. Rossmann
Probabilistic Programming	Bachelor, Master	Informatik 2	Prof. Katoen
Modeling and Verification of Probabilistic Systems	Master	Informatik 2	Prof. Katoen
Compiler Construction	Master	Informatik 2	Prof. Noll

### Software and Communication

Lecture	Degree Program	Group	Lecturer
Software Architectures	Bachelor, Master	Informatik 3	Prof. Nagl
Object Oriented Software Construction	Bachelor, Master	LuFG I3	Prof. Lichter
Advanced Internet Technology	Bachelor, Master	Informatik 4	Prof. Wehrle
Communication Systems Engineering	Bachelor, Master	Informatik 4	Prof. Wehrle
Formal Methods for Logic Control Software	Master	Informatik 11	Prof. Kowalewski

## Data- and Information-Management

Lecture	Degree Program	Group	Lecturer
IT-Security 1	Master	LuFG I4	Prof. Meyer
Introduction to Artificial Intelligence	Bachelor, Master	LuFG I5	Prof. Lakemeyer
Introduction to Data Science	Master	Informatik 9	Prof. van der Aalst
Einführung in Webtechnologien (in German)	Bachelor (Ausnahme Lehramt alte Studienordnung)	LuFG I9	Prof. Schroeder
Implementation of Databases	Bachelor, Master	Informatik 5	Prof. Jarke/Quix
Web Science	Bachelor, Master	Informatik 5	Klamma
Semantic Web	Bachelor, Master	Informatik 5	Prof. Decker
Data Driven Medicine	Master	Informatik 5	Prof. Decker/Beyan

## Applied Computer Science

Lecture	Degree Program	Group	Lecturer
Basic Techniques in Computer Graphics	Bachelor, Master	Informatik 8	Prof. Kobbelt
Real-Time Graphics	Bachelor, Master	Informatik 8	Prof. Kobbelt
Physically-Based Animation	Bachelor, Master	Informatik 8	Prof. Bender
Machine Learning	Master	Informatik 8	Prof. Leibe
Computer Vision 2	Master	Informatik 8	Prof. Leibe
Designing Interactive Systems I	Bachelor, Master	Informatik 10	Prof. Borchers
iOS Application Development	Bachelor, Master	Informatik 10	Simon Völker
Introduction to Virtual Reality	Master	Informatik 12	Prof. Kuhlen
Computational Differentiation	Bachelor	Informatik 12	Prof. Naumann
Introduction to High	Bachelor, Master	Informatik 12	Prof. Müller

Performance Computing			
Automatic Speech Recognition	Bachelor, Master	Informatik 6	Prof. Ney
Statistical Classification and Machine Learning	Bachelor, Master	Informatik 6	Prof. Ney
Social Data Science	Master	Chair for Computational Social Sciences and Humanities	Prof. Strohmaier