

# English Courses

## Summer Semester 2020 and Winter Semester 2020/21

Department of Computer Science  
Technische Universität Darmstadt



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## **Explanatory Notes for Exchange Students**

- 1.) Lectures and Integrated Lectures are usually offered either in the summer semester or the winter semester.
- 2.) Labs, Projects, Project Labs and Seminars are often offered each semester. Some of them may be offered irregularly (by request).
- 3.) The course offering semester may change in the future.
- 4.) The language of instruction for the listed courses may also change in the future.
- 5.) The term “Integrated Lecture” means a regular lecture (with an oral or written exam as basis for the grading) and eventually some included seminar or lab parts.
- 6.) Seminars, Projects, Project Labs and Labs are usually restricted by the number of participants. But exchange students are usually accepted with priority.
- 7.) The credit points are ECTS credit points.

Course Name	Course Code	Course Type	Credit Points	Last offered in
Actor-based Languages	20-00-1074-se	Seminar	3	Winter 2020/21
Advanced Approaches in Software Verification	20-00-1078-se	Seminar	3	Winter 2020/21
Advanced Data Management Systems	20-00-1039-iv	Integrated Lecture	6	Summer 2020
Advanced Topics in Embedded Systems and Applications	20-00-1001-pp	Project Lab	9	Winter 2020/21
Analysis of Hybrid Systems	20-00-1087-vl	Lecture	3	Summer 2020
Applied Topics in Computer Graphics	20-00-0724-se	Seminar	3	Summer 2020
Attacker Models in IT Security	20-00-1091-se	Seminar	3	Summer 2020
Automated Code Generation	20-00-0790-se	Seminar	3	Summer 2020
Automatic Software Verification	20-00-1069-iv	Integrated Lecture	6	Summer 2020
Capturing Reality	20-00-0489-iv	Integrated Lecture	6	Summer 2020
Compiler Tooling	20-00-1013-pr	Lab	6	Winter 2020/21
Computer Vision I	20-00-0157-iv	Integrated Lecture	6	Winter 2020/21
Computer Vision II	20-00-0401-iv	Integrated Lecture	6	Summer 2020
Concepts of Programming Languages	20-00-0072-iv	Integrated Lecture	6	Winter 2020/21
CORONA-CON	20-00-1099-se	Seminar	4	Summer 2020
Crisis, Security and Peace Technologies	20-00-1019-se	Seminar	4	Winter 2020/21
Cryptographic Protocols	20-00-1032-iv	Integrated Lecture	6	Summer 2020
Current Topics in Concurrency and Parallelism	20-00-0960-se	Seminar	3	Winter 2020/21
Current Topics in Concurrency Theory	20-00-1093-se	Seminar	3	Winter 2020/21

Course Name	Course Code	Course Type	Credit Points	Last offered in
Data Analysis Software Project for Natural Language	20-00-0948-pp	Project Lab	9	Summer 2020
Data Management - Extended Lab	20-00-1042-pp	Project Lab	9	Summer 2020
Data Management - Lab	20-00-1041-pr	Lab	6	Summer 2020
Deep Generative Models	20-00-1035-iv	Integrated Lecture	6	Summer 2020
Deep Learning and Digital Humanities	20-00-1080-se	Seminar	3	Winter 2020/21
Deep Learning for Medical Imaging	20-00-1014-iv	Integrated Lecture	5	Winter 2020/21
Deep Learning: Architectures & Methods	20-00-1034-iv	Integrated Lecture	6	Summer 2020
Distributed Systems Programming: Project	20-00-0984-pp	Project Lab	9	Winter 2020/21
Embedded Systems Hands-On 1: Design and Implementation of Hardware-Software Systems	20-00-0959-pr	Lab	6	Summer 2020
Extended Seminar - Systems and Machine Learning	20-00-1057-se	Seminar	4	Winter 2020/21
Hands-on-Course: Formal Specification and Verification in Isabelle/HOL	20-00-0778-pr	Lab	6	Summer 2020
Internet - Practical Course Telecooperation	20-00-0131-pr	Lab	6	Winter 2020/21
IT Solutions with Software Engineering in Practice	20-00-0635-iv	Integrated Lecture	3	Winter 2020/21
Lab Blockchain	20-00-1031-pr	Lab	6	Summer 2020
Lab Peace-, Security and Crisis Informatics	20-00-1020-pr	Lab	6	Summer 2020
Labs on Algorithms for Electronic Design Automation Tools	20-00-0571-pr	Lab	6	Winter 2020/21
Meta-Science	20-00-1086-se	Seminar	3	Summer 2020
Mobile Networking	20-00-0748-iv	Integrated Lecture	6	Winter 2020/21

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Network Security	20-00-0512-iv	Integrated Lecture	6	Summer 2020
New Trends in Secure Software Engineering	20-00-1089-se	Seminar	3	Summer 2020
Parallel Computing	20-00-0994-se	Seminar	3	Winter 2020/21
Parallel Programming Technology	20-00-1008-pr	Lab	6	Winter 2020/21
Performance Engineering	20-00-1038-se	Seminar	3	Summer 2020
Physical Layer Security in Wireless Systems	20-00-0745-iv	Integrated Lecture	5	Winter 2020/21
Practical Course in Artificial Intelligence	20-00-0412-pr	Lab	6	Summer 2020
Practical Project Knowledge Engineering and Machine Learning	20-00-0919-pp	Project Lab	9	Summer 2020
Privacy & Anonymity in a Networked World	20-00-0807-se	Seminar	4	Winter 2020/21
Privacy-Preserving Technologies	20-00-0935-se	Seminar	3	Winter 2020/21
Programming Massively Parallel Processors	20-00-0419-iv	Integrated Lecture	6	Winter 2020/21
Project Lab Capturing Reality	20-00-0764-pp	Project Lab	9	Winter 2020/21
Project Lab Deep Learning in Computer Vision	20-00-0980-pp	Project Lab	9	Winter 2020/21
Project Lab Programming Massively Parallel Systems	20-00-0763-pp	Project Lab	9	Summer 2020
Project Peace- and Crisis Informatics	20-00-1027-pp	Project Lab	9	Summer 2020
Protection in Infrastructures and Networks	20-00-1022-se	Seminar	3	Winter 2020/21
Protection in Networked Systems - Trust, Resilience, and Privacy	20-00-0969-iv	Integrated Lecture	3	Summer 2020
Research Project Knowledge Engineering and Machine Learning	20-00-0751-pj	Research Project	12	Summer 2020

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Research Project Telecooperation	20-00-0950-pj	Research Project	12	Winter 2020/21
Robot Learning: Integrated Project - Part 1	20-00-0753-pj	Lab	6	Winter 2020/21
Robot Learning: Integrated Project - Part 2	20-00-0754-pj	Lab	6	Winter 2020/21
Scalable Data Management	20-00-1017-iv	Integrated Lecture	6	Winter 2020/21
Scale Space and PDE methods in image analysis and processing	20-00-0469-se	Seminar	3	Summer 2020
Seminar Cryptographie	20-00-1103-se	Seminar	3	Winter 2020/21
Seminar Data Mining and Machine Learning	20-00-0102-se	Seminar	3	Summer 2020
Seminar Telecooperation	20-00-0130-se	Seminar	3	Winter 2020/21
Seminar: Formal Specification and Verification	20-00-0914-se	Seminar	3	Summer 2020
Serious Games Lab	20-00-0236-pr	Lab	6	Winter 2020/21
Serious Games Project	20-00-0649-pp	Project Lab	9	Winter 2020/21
Serious Games Seminar	20-00-0328-se	Seminar	4	Winter 2020/21
Side-Channel Analysis Lab	20-00-1090-pr	Lab	6	Summer 2020
Side-Channel Attacks on Software	20-00-0798-se	Seminar	3	Winter 2020/21
Side-channel resilient cryptography	20-00-1088-se	Seminar	3	Summer 2020
Software Engineering for Artificial Intelligence	20-00-1097-se	Seminar	3	Winter 2020/21
Statistical Machine Learning	20-00-0358-iv	Integrated Lecture	6	Summer 2020
Statistical Relational Artificial Intelligence: Logic, Probability, and Computation	20-00-1011-iv	Integrated Lecture	6	Winter 2020/21

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Symmetric Cryptography	20-00-1107-iv	Integrated Lecture	6	Winter 2020/21
TK1: Distributed Systems and Algorithms	20-00-0065-iv	Integrated Lecture	6	Winter 2020/21
Type Systems	20-00-1076-iv	Integrated Lecture	6	Winter 2020/21
Verification of Parallel Programs	20-00-1079-iv	Integrated Lecture	3	Winter 2020/21
Writing and Evaluating Scientific Publications in IT Security	20-00-1105-se	Seminar	3	Winter 2020/21