



EECS/Computer Science

Courses

Courses, EECS/Computer Science

Course name	Scope	Course code
Advanced Performance Analysis of Communication Networks	9.0 hp	FEP3210
Advanced Performance Analysis Project Course	3.0 hp	FEP3215
Current Research in Proof Complexity	9.0 hp	FDD3501
Algorithms for Networks - Complexity and Approximations	8.0 hp	FEP3360
Algorithmic Bioinformatics	6.0 hp	FDD3450
Analysis of Boolean Functions	7.5 hp	FJT3382
Analysis and Optimization of Wireless Systems	7.5 hp	FIK3508
Approximation Algorithms	6.0 hp	FDD3390
Artificial Neural Networks and deep Architectures	7.5 hp	FDD3437
Automata and Languages	6.0 hp	FDD3372
Advanced Ethical Hacking	8.0 hp	FEP3370
Advanced Enterprise Modeling: Holistic Systems & Software Modeling	8.0 hp	FJP3310
Advanced course in Data-Intensive Computing	7.5 hp	FID3019
Advanced Course in Data Mining and Analytics	7.5	FID3018

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Advanced Course in Distributed Algorithms	7.5 hp	FID3021
Advanced Course in Network Management	8.0 hp	FEP3323
Advanced Course in Large Scale Machine Learning and Deep Learning	7.5 hp	FID3020
Advanced Machine Learning I	7.5 hp	FDD3010
Advanced Constraint Programming	7.5 hp	FID3014
Advanced Topics in Internetworking	7.5 hp	FIK3623
Advanced Computation in Fluid Mechanics	7.5 hp	FDD3371
Advanced Objekt Oriented Systems	7.5 hp	FDD3456
Advanced Topics in Distributed Systems	7.5 hp	FID3008
Advanced Topics in Communication Systems	15.0 hp	FIK3622
Advanced Topics in Networked Systems	7.5 hp	FID3012
Basal Ganglia- Intervestigation of Theories and Models	7.5 hp	FDD3442
Basal Ganglia-Reading Course on Theories and Models	3.0 hp	FDD3443
Computational Topics in Phylogeny Inference	6.0 hp	FDD3009
Computational Modeling in Current Neuroscience	3.0 hp	FDD3007
Building Networked Systems Security	8.0 hp	FEP3250
Data Mining	7.5 hp	FID3016
Knowledge Discovery and Data Mining	6.0 hp	FDD3342
Computer Science Education Research	7.5	FDD3462

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Computer Systems Architecture	10.0 hp	FIS3202
Distributed Algorithms	6.0 hp	FDD3008
Deep Learning Methods for Biomedical Image Analysis	7.5 hp	FDD3020
Graduate Course in Artificial Neural Networks and Other Learning Systems	6.0 hp	FDD3432
Graduate Course in Mathematical Modeling of Biological system	9.0 hp	FDD3435
Energy Efficient Mobile Networks	3.0 hp	FIK3509
Formal Methods	7.5 hp	FDD3452
Research Course in Distributed Systems	7.5 hp	FID3011
Research: Theory, Method, Practice	7.5 hp	FDD3001
Research preparation course in programming languages and formal methods	10.0 hp	FDD3024
Research Methodology in Computer Science	7.5 hp	FID3023
Conducting Systematic Literature Reviews in Systems Engineering	5.0 hp	FJP3101
Blockchain Fundamentals: Technology and Applications	7.5 hp	FID3022
Fundamentals of Machine Learning Networks	10.0 hp	FEP3260
Brain-like Computing	7.5 hp	FDD3499
High Performance Finite Element Modeling	7.5 hp	FDD3375
Individual Course in Computational Biology	7.5 hp	FDD3451
Information Visualization for Doctoral Students	7.5 hp	FDK3260

Privacy- Enhancing Technologies	7.5 hp	FDD3344
Interactive Theorem Proving	4.5 hp	FDD3461
Interactive Theorem Proving and Program Verification	7.5 hp	FDD3023
Interactive Entertainment Technologies	6.0 hp	FDD3336
Introduction to High Performance Computing	7.5 hp	FDD3258
Introduction to High Performance Computing	7.5 hp	FDN3258
Introduction to Programming with GPGPU and Applications in Scientific Computing	7.5 hp	FDD3015
Combinatorial Optimization	6.0 hp	FDD3402
Communication Complexity	6.0 hp	FDD3502
Compilers and Execution Environments	7.5 hp	FID3006
Complexity Theory	7.5 hp	FDD3445
Critical Perspectives on Engineering and Construction of ICT Systems	7.5 hp	FIK3615
Knowledge Representation and Reasoning Strategies in Intelligent Systems	15.0 hp	FID3013
sum of Square Seminar	7.5 hp	FDD3381
Quantum Computing	6.0 hp	FDD3335
Information Visualization for Doctoral Students	7.5 hp	FJH3003
Learning Machines	7.5 hp	FIK3616
Reading Group in Advanced Topics in Communication Networks 1	10.0 hp	FEP3390
Reading Group in Advanced Topics in Communication Networks 2	10.0 hp	FEP3391

Reading Course in Computer Science for PhD students	9.0 hp	FDD3019
Reading Course in Computer Science for PhD students 1,5 hp	1.5 hp	FDD3016
Reading Course in Computer Science for PhD students 3 hp	3.0 hp	FDD3017
Reading Course in Computer Science for PhD students 6 hp	6.0 hp	FDD3018
Reading Course on Statistical Anomaly Detection	4.5 hp	FDD3334
Machine Learning, Advanced Course	7.5 hp	FDD3434
Software Reliability	9.0 hp	FDD3459
Software Defined Networking (SDN) and Network Functions Virtualization (NFV)	7.5 hp	FIK3619
Scientific Software Development Toolbox	5.0 hp	FDD3370
Neuroscience	7.5 hp	FDD3401
Network Planning Methods	6.0 hp	FIK3612
Parallel Computing: Theory - Hardware - Software with Special Focus on Multi-Core Programming	7.5 hp	FDD3003
Presenting Popular Science Posters	1.5 hp	FID3015
Programming for Data Science	7.5 hp	FID3214
Program and Semantics ans Analysis	6.0 hp	FDD3457
Probability and Stochastic Processes for Engineering Applications	9.0 hp	FIK3617
Survey group on select topics in computer science	6.0 hp	FDD3021
Seminar on Advanced Topics in Communication Networks 1	8.0 hp	FEP3316
Seminar on Advanced Topics in Communication Networks 2	8.0 hp	FEP3317

Seminar Course in High Performance Computing Visualization	3.0 hp	FDD3327
Seminars on Theoretical Computer Science	7.5 hp	FDD3343
Seminars in Static Analysis	7.5 hp	FDD3011
Recent Advances in Cloud Computing	5.0 hp	FDD3321
Statistical Problems in Simulation	6.0 hp	FIK3507
Computational Game Theory	8.0 hp	FEP3301
Statistical Methods in Applied Computer Science	6.0 hp	FDD3447
Stochastic Models and the Theory of Queues	9.0 hp	FEP3340
Masterpieces in Theoretical Computer Science	7.5 hp	FDD3350
Stream Processing	7.5 hp	FID3017
Topics in Theoretical Computer Science	2.0 hp	FDD3341
Sum of Squares and Integer Programming Relaxations	6.0 hp	FDD3013
Systems for Scalable Machine Learning	7.5 hp	FID3024
Systems Level Theories of Brain Function	3.0 hp	FDD3433
Networked Systems Security	8.0 hp	FEP3200
Advanced Networked Systems Security	8.0 hp	FEP3300
Techno-Economics of Optical Networks	7.5 hp	FIK3613
Teleconomics, Advanced Course	7.5 hp	FIK3618
Tele Economics, basic course for PhD students	7.5 hp	FIK3621

Temporal Logic	4.0 hp	FDD3006
Applied GPU Programming	7.5 hp	FDD3360
Wireless Transmission Techniques	9.0 hp	FIK3624
Wireless Access Protocols	7.5 hp	FIK3505
Types, Semantics, and Programming Languages	7.5 hp	FIK3620
Scientific Programming in Python for Computational Biology	5.0 hp	FDD3436
Philosophy of Science	7.5 hp	FIV3000
Constraint Programming	7.5 hp	FID3005
Topics in Computational Brain Science: Vision I	4.0 hp	FJH3001
Topics in Computational Brain Science: Vision II	6.0 hp	FJH3002
Performance Monitoring of Telecom Clouds and Software-Defined Networks	9.0 hp	FDD3314

Contact for questions regarding education at KTH: [Central study counseling](#)
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