# Master's Programme in Computer Science - Replacement Courses

If you have already completed the equivalent of one of the mandatory courses in the Computer Science Master's programme, you can apply to take a replacement course instead. Like all mandatory courses, the replacement course must contribute to a broad education in Computer Science. The following list contains the only courses which are approved to be used as replacement courses.

NOTE: your replacement course cannot be part of your track. Make sure that you fulfill the necessary prerequisites for the replacement course. You must contact the Master Coordinator with evidence that you have completed the course that corresponds to one of the mandatory courses (transcript and syllabus).

List of courses (grouped according to the period in which they are given):

### P1:

DD2257 Visualization 7.5 credits

DD2358 Introduction to High Performance Computing 7.5 credits

DD2410 Introduction to Robotics 7.5 credits

DD2421 Machine Learning 7.5 credits

DD2437 Artificial Neural Networks and Deep Architectures 7.5 credits

DD2443 Parallel and Distributed Computing 7.5 credits

DD2452 Formal Methods 7.5 credits

DD2488 Compiler Construction 9.0 credits

ID2201 Distributed Systems, Basic Course 7.5 credits

ID2221 Data-Intensive Computing 7.5 credits

IL2206 Embedded Systems 7.5 credits

#### P2:

ID2222 Data Mining 7.5 credits

DD2423 Image Analysis and Computer Vision 7.5 credits

IL2230 Hardware Architectures for Deep Learning 7.5 credits

ID2223 Scalable Machine Learning and Deep Learning 7.5 credits

DD2487 Large-Scale Software Development 7.5 credits

EP2500 Networked Systems Security 7.5 credits

DD2360 Applied GPU Programming 7.5 credits

## P3:

DD2437 Artificial Neural Networks and Deep Architectures 7.5 credits IS2202 Computer Systems Architecture 7.5 credits

DD2258 Introduction to Visualization, Computer Graphics and Image/Video Processing 7.5 credits

DD2421 Machine Learning 7.5 credits

DD2480 Software Engineering Fundamentals 7.5 credits

DD2459 Software Reliability 7.5 credits

DD2476 Search Engines and Information Retrieval Systems 9.0 credits

DD2520 Applied Cryptography 7.5 credits

DD2363 Methods in Scientific Computing 7.5 credits

#### P4:

DD2482 Automated Software Testing and DevOps 7.5 credits

ID2211 Data Mining, Basic Course 7.5 credits

DH2323 Computer Graphics and Interaction 6.0 credits

DD2424 Deep Learning in Data Science 7.5 credits

DD2356 Methods in High Performance Computing 7.5 credits

DD2481 Principles of Programming Languages 7.5 credits

DD2457 Program Semantics and Analysis 6.0 credits (NOTE: only given every other year)

DD2460 Software Safety and Security 7.5 credits

DD2418 Language Engineering 6.0 credits