

OVERVIEW PARTICIPATING STUDY M-CS

This document gives an overview of courses indicating M-CS as participating programme. Participating studies is a field indicated by the programme offering the course (coordinating unit). This means that not all courses are automatically suited to CS or all CS students, nor are you automatically allowed to take part. Always check the prerequisites and course description, and if in doubt consult your programme mentor or contact the teacher (depending on the question) Another way to find CS related courses that might not be on this overview, is to use the 'offered by...' field in the Osiris course catalogue (www.utwente.nl/coursecatalogue) with related programmes, like for example other EEMCS Masters ROB, ITECH, BIT, EMSYS, EE or AM.

Courses indicated as 'draft' can still change during the year. Courses exclusively offered for EngD or EIT Digital Masterschool students are not on the list below.

Q1

Course	Academic year	Short name	Status	credits	Coordinating unit	Long name (English)	Remark	OSIRIS	Student	Quarter
201700077	2024	Advanced Networking	Final	5	M-CS	Advanced Networking	Maximum of 16 students	Yes		Q1
201800005	2024	Applied Statistical Learning	Final	5	M-IEM	Applied Statistical Learning		Yes		Q1
201800405	2024	Computer Science / BIT Study Tour	Final	10	M-CS	Computer Science / BIT Study Tour		Yes		Q1
202300044	2024	Cyber Risk Management	Final	5	M-CS	Cyber Risk Management		Yes		Q1
202300078	2024	Embedded Computer Architectures 1	Final	5	M-EMSYS	Embedded Computer Architectures 1	Previously 192130240	Yes		Q1
202100258	2024	FAIR Data Engineering	Final	5	M-CS	FAIR Data Engineering	Previously FAIR Principles and the FAIRification process	Yes		Q1
201600076	2024	Foundations of Information Retrieval	Final	5	M-ITECH	Foundations of Information Retrieval		Yes		Q1
202400609	2024	Green Software Development	Final	5	M-CS	Green Software Development		Yes		Q1
202100178	2024	I&E Basics: Innov. Mgt EIT	Final	5	M-CS	I&E Basics: Innovation Management for EIT		Yes		Q1
201700075	2024	Internet of Things for EEMCS	Final	5	M-CS	Internet of Things		Yes		Q1
201500040	2024	Introduction to Biometrics	Final	5	M-EE	Introduction to Biometrics		Yes		Q1
201300042	2024	Limits to Computing	Final	5	M-CS	Limits to Computing		Yes		Q1
201600070	2024	Machine Learning I	Final	5	M-ITECH	Machine Learning I		Yes		Q1
192135450	2024	Model Driven Engineering	Final	5	M-CS	Model Driven Engineering		Yes		Q1
192135310	2024	Modeling & Analysis Concurrent Systems	Final	5	M-CS	Modeling and Analysis of Concurrent Systems		Yes		Q1
201600074	2024	Natural Language Processing	Final	5	M-ITECH	Natural Language Processing		Yes		Q1
202000026	2024	Secure Cloud Computing	Final	5	M-CS	Secure Cloud Computing		Yes		Q1
192110940	2024	Secure Data Management	Final	5	M-CS	Secure Data Management		Yes		Q1
202300045	2024	Security and Cryptography	Final	5	M-CS	Security and Cryptography		Yes		Q1
202300064	2024	Simulation	Final	5	M-IEM	Simulation		Yes		Q1
192140122	2024	System Validation	Final	5	M-CS	System Validation		Yes		Q1
191211590	2024	System-on-Chip for Embedded Systems	Final	5	M-EE	System-on-Chip for Embedded Systems	191210750 is main course (SEM)	Yes		Q1
202400588	2024	Wireless Communication Systems	Final	5	M-EE	Wireless Communication Systems	Previously 202300100, and 202100101.	Yes		Q1

Q2

Course	Academic year	Short name	Status	credits	Coordinating unit	Long name (English)	Remark	OSIRIS	Student	Quarter
201600083	2024	AP in Information Retrieval	Final	5	M-ITECH	Advanced Project in Information Retrieval		Yes		Q2
192320111	2024	Architecture of Information Systems	Verified d	5	M-BIT	Architecture of Information Systems	Moved from Q4 to Q2	Yes		Q2
201700119	2024	Business Development Lab I for EIT	Final	5	M-CS	Business Development Lab I for EIT		Yes		Q2
201400177	2024	Cloud Networking	Final	5	M-CS	Cloud Networking	Maximum 18 students is set	Yes		Q2
191612680	2024	Computer Ethics	Draft	5	M-PSTS	Computer Ethics		Yes		Q2
202200104	2024	Control System Design for Robotics	Final	5	M-ROB	Control System Design for Robotics	Previously 202000255 Advanced Control Engineering M-ME (1A) and 201900093 Control System Design for Mechatronics M-EE (1A)	Yes		Q2
202300200	2024	Data Science	Final	5	M-CS	Data Science	Previously 201400174	Yes		Q2
202300201	2024	Data Science - Additional Topics	Final	5	M-CS	Data Science - Additional Topics	Previously 201500363	Yes		Q2
201800177	2024	Deep Learning - From Theory to Practice	Verified d	5	M-AM	Deep Learning - From Theory to Practice		Yes		Q2
192111332	2024	Design of Software Architectures	Final	5	M-CS	Design of Software Architectures	Moved from Q1 to Q2	Yes		Q2

202200149	2024 eHealth Technology	Draft	5	M-HS	eHealth Technology for Remote Patient Monitoring and Decision- making	Yes	Q2	
192320501	2024 Electronic Commerce	Verified d	5	M-BIT	Electronic Commerce	Yes	Q2	
202200159	2024 Embedded AI	Verified d	5	M-EMSYS	Embedded Artificial Intelligence	Yes	Q2	
192130250	2024 Embedded Computer Architectures 2	Verified d	5	M-EMSYS	Embedded Computer Architectures 2	Yes	Q2	
202100073	2024 Empirical Security Analysis Engineering	Final	5	M-CS	Empirical Security Analysis and Engineering	Collaboration with Muenster requires travel	Yes	Q2
201900082	2024 Graph Algorithms and Complexity	Verified d	5	M-CS	Graph Algorithms and Complexity	Yes	Q2	
202001552	2024 Human Factors and Organization Design	Draft	5	M-IEM	Human Factors and Organizational Design in Socio-technical Systems	Maximum of 40 students is set.	Yes	Q2
202300099	2024 Instrumentation for Embedded Systems	Final	5	M-EMSYS	Instrumentation for Embedded Systems	Homologation course for EMSYS	Yes	Q2
202100126	2024 Interactive Theorem Proving	Final	5	M-CS	Interactive Theorem Proving	Yes	Q2	
202400120	2024 Learning Analytics	Verified d	5	M-CS	Learning Analytics	Yes	Q2	
201600071	2024 Machine Learning II	Final	5	M-ITECH	Machine Learning II	Yes	Q2	
201200044	2024 Managing Big Data	Final	5	M-CS	Managing Big Data	Yes	Q2	
202300220	2024 Markov Decision Theory & Algorith. Meth.	Final	5	M-AM	Markov Decision Theory and Algorithmic Methods	Previously 191531920	Yes	Q2
201300060	2024 Mathematical Finance	Draft	5	M-IEM	Mathematical Finance	Yes	Q2	
192620300	2024 Performance Evaluation	Final	5	M-CS	Performance Evaluation	Yes	Q2	
202300046	2024 PET bootcamp	Verified d	5	M-CS	Privacy Enhancing Technologies bootcamp	Yes	Q2	
201600040	2024 Requirements Engineering Processes	Verified d	5	M-CS	Requirements Engineering Processes and Methods	Yes	Q2	
201600051	2024 Software Security	Final	5	M-CS	Software Security	Yes	Q2	
201600075	2024 Speech Processing	Verified d	5	M-ITECH	Speech Processing	Yes	Q2	

Q3

Course	Academic year	Short name	Status	credits	Coordinating I	Long name (English)	Remark	OSIRIS	Student	Quarter
202300066	2024	5G/6G ComSens	Verified d	5	M-EE	5G/6G Communication and Sensing Channels	Previously 191211030 Wireless Propagation Channels	Yes		Q3
201700196	2024	Advanced Discrete Event Simulation	Draft	5	M-IEM	Advanced Discrete Event Simulation		Yes		Q3
201700079	2024	Blockchain and Distr. Ledger Technology	Verified d	5	M-CS	Blockchain and Distributed Ledger Technology		Yes		Q3
201700120	2024	Business Development Lab II for EIT	Final	5	M-CS	Business Development Lab II for EIT		Yes		Q3
202300200	2024	Data Science	Final	5	M-CS	Data Science	Previously 201400174	Yes		Q3
202300201	2024	Data Science - Additional Topics	Final	5	M-CS	Data Science - Additional Topics	Previously 201500363	Yes		Q3
202100107	2024	Deep Learning for Medical Image Analysis	Final	5	M-AM	Deep Learning for 3D Medical Image Analysis	Moved from Q4 to Q3	Yes		Q3
202001492	2024	Design Thinking for Serv. Bus. Innov.	Draft	5	M-IDE	Design Thinking for Service and Business Innovation		Yes		Q3
202000029	2024	Empirical and Design Science Research	Verified d	5	M-BIT	Empirical and Design Science Research in Information Systems		Yes		Q3
202400416	2024	Graph Theory	Verified d	4	M-AM	Graph Theory	previously 191520751	Yes		Q3
191210950	2024	IDSP	Verified d	5	M-EE	Implementation of Digital Signal Processing		Yes		Q3
194105070	2024	Inform.Systems for the Financial Service	Draft	5	M-BA	Information Systems for the Financial Services Industry		Yes		Q3
201700080	2024	Information Theory and Statistics	Verified d	5	M-CS	Information Theory and Statistics		Yes		Q3
201700074	2024	Internet Security	Verified d	5	M-CS	Internet Security		Yes		Q3
202100263	2024	Linked Data and Semantic Web	Final	5	M-CS	Linked Data and Semantic Web		Yes		Q3
201900097	2024	Machine learning in engineering	Draft	5	M-ME	Machine learning in engineering		Yes		Q3
191581420	2024	Mixed-Integer Optimization	Verified d	5	M-AM	Mixed-Integer Optimization		Yes		Q3
192620010	2024	Mobile and Wireless Networking	Verified d	5	M-CS	Mobile and Wireless Networking		Yes		Q3
202100244	2024	Pervasive Computing	Verified d	5	M-CS	Pervasive Computing		Yes		Q3
202100113	2024	Probabilistic Model Checking	Verified d	5	M-CS	Probabilistic Model Checking (Software Science)	Offered every two years; Offered in 24-25	Yes		Q3
201700081	2024	Probabilistic Programming	Verified d	5	M-CS	Probabilistic Programming		Yes		Q3
202100115	2024	Program Verification	Final	5	M-CS	Program Verification (Software Science)	Offered every two years; Not in 24-25	Yes		Q3
202300109	2024	Quantitative Evaluation of Systems	Verified d	5	M-CS	Quantitative Evaluation of Systems	Previously 201200006	Yes		Q3
192652150	2024	Service-oriented Architecture Web Serv.	Final	5	M-CS	Service-oriented Architecture with Web services	Maximum 100 students is set.	Yes		Q3

202001472	2024 STAR	Verified d	5	M-CS	Software Testing and Risk Assessment		Yes	Q3
201300062	2024 Structured Products	Draft	5	M-IEM	Structured Products		Yes	Q3
202100108	2024 UQ & Data-driven Modeling	Verified d	5	M-AM	Uncertainty Quantification & Data-driven Modeling		Yes	Q3

Q4

Course	Academic year	Short name	Status	credits	Coordinating i	Long name (English)	Remark	OSIRIS Studen	Quarter
201700073	2024	Ad-Hoc Networks	Verified d	5	M-CS	Ad-Hoc Networks	Maximum of 16 students is set.	Yes	Q4
201100254	2024	Adv. Comp. Vision & Pattern Recognition	Verified d	5	M-EE	Advanced Computer Vision and Pattern Recognition		Yes	Q4
192111092	2024	Advanced Logic	Verified d	5	M-CS	Advanced Logic		Yes	Q4
202400121	2024	Autom. Vulnerability Res. and Mitigation	Final	5	M-CS	Automated Vulnerability Research and Mitigation		Yes	Q4
202300047	2024	Cyber Data Analytics	Verified d	5	M-CS	Cyber Data Analytics		Yes	Q4
192130022	2024	Design of Digital Systems	Verified d	5	M-EMSYS	Design of Digital Systems		Yes	Q4
192130112	2024	Distributed Systems	Verified d	5	M-CS	Distributed Systems		Yes	Q4
201500038	2024	E-Law	Verified d	5	M-CS	E-Law		Yes	Q4
202300336	2024	Explainable AI	Verified d	5	M-CS	Explainable AI		Yes	Q4
202001186	2024	Functional Programming	Draft	5	B-TCS	Functional Programming	Part of Programming paradigms B-TCS. Only after explicit permission from the programme mentor/teacher	Yes	Q4
202100114	2024	Graph Transformations	Verified d	5	M-CS	Graph Transformations (Software Science)	Offered every two years. Offered in 24-25	Yes	Q4
202100112	2024	Graphical Models and Causality	Verified d	5	M-AM	Graphical Models and Causality	Resit in 1A	Yes	Q4
202001579	2024	Internet Measurements	Verified d	5	M-CS	Internet Measurements		Yes	Q4
202100116	2024	Model Checking and Parity Games	Verified d	5	M-CS	Model Checking and Parity Games (Software Scienc	Offered every two years. NOT offered in 24-25	Yes	Q4
202100291	2024	Ontology-Driven Conceptual Modeling	Verified d	5	M-BIT	Ontology-Driven Conceptual Modeling with Applications		Yes	Q4
201300074	2024	REDI	Verified d	5	M-CS	Research Experiments in Databases and Informatio	Maximum 24 students is set.	Yes	Q4
202100109	2024	Reinforcement Learning	Verified d	5	M-AM	Reinforcement Learning		Yes	Q4
202100226	2024	Reinforcement learning in Engineering	Draft	5	M-ME	Reinforcement learning in Engineering		Yes	Q4
201700083	2024	Security Services for IoT	Verified d	5	M-CS	Security Services for the Internet of Things		Yes	Q4
201400225	2024	Software Evolution	Verified d	5	M-CS	Software Evolution	Moved from Q3 to Q4	Yes	Q4
192340041	2024	Software Management	Verified d	5	M-BIT	Software Management		Yes	Q4
201700364	2024	Spatial Statistics	Verified d	5	M-AM	Spatial Statistics		Yes	Q4
201700086	2024	System Security	Verified d	5	M-CS	System Security		Yes	Q4
191571090	2024	Time Series Analysis	Verified d	5	M-AM	Time Series Analysis		Yes	Q4
201900098	2024	Uncertainty quantification & model reduc	Draft	5	M-ME	Uncertainty quantification and model reduction		Yes	Q4

YEAR

Course	Academic year	Short name	Status	credits	Coordinating i	Long name (English)	Remark	OSIRIS Studen	Quarter
191158500	2024	Advanced Programming in Engineering	Final	5	M-ME	Advanced Programming in Engineering	Not always suitable, discuss with your programme mentor if i	Yes	YEAR
202200251	2024	Capita Selecta DST	Verified d	2 to 5	M-CS	Capita Selecta DST		Yes	YEAR
201400171	2024	Capita Selecta Software Technology	Final	5	M-CS	Capita Selecta Software Technology		Yes	YEAR
192199968	2024	Internship CS	Final	20	M-CS	Internship Computer Science		Yes	YEAR
191158510	2024	Programming in Engineering	Final	3	M-ME	Programming in Engineering	Not always suitable, discuss with your programme mentor if i	Yes	YEAR
201500039	2024	Security Verification	Final	5	M-CS	Security Verification		Yes	YEAR

Semester

Course	Academic year	Short name	Status	credits	Coordinating i	Long name (English)	Remark	OSIRIS Studen	Quarter
201400172	2024	Industrial Software Engineering Project	Final	10	M-CS	Industrial Software Engineering Project	Semester-long course in 1A (Q1) and 1B (Q2).	Yes	Sem 1: Q1-Q2
191210750	2024	System-on-Chip Design	Final	10	M-EE	System-on-Chip Design	Together with 191211590. 191210750 is main course.	Yes	Sem 1: Q1-Q2