Specialization "Intelligent Technology" 2023-2024

MSc curriculum in general:

year 1	EC
Compulsory courses	21
Specialization courses	18
Specialization electives	18
Free electives	3

year 2	EC
Free electives	15
Internship MKI83	15
Research project MKI92	30

* core choice: chose 3 out of 6 specialization courses

* specialization electives: chose 18 ec of the published list

or: Extended research project MKI94 — 45

Compulsory: 21 EC (both specialisations) + 18 EC (specialization courses) = 39 EC

period 1		EC	period 2		EC	period 3		EC	period 4		EC
Choice ML courses: Statistical Machine Learning NWI-IMC056 (SEM1)/Machine Learning in Practice NWI-IMC030 (SEM2)/Applied Machine Learning MKI75 (SEM2)/Probabilistic Deep Learning MKI69 (SEM2)											
Advanced A&PS MKI66	Ahmadi	3	Advanced A&PS MKI66	Ahmadi	3				AI in the professional Workfield MKI76	Ahmadi	3
Ethics for AI MKI67	Mecacci	3	Ethics for AI MKI67	Mecacci	3						

Specialization core Neurotechnology and Healthcare (select 18EC)

Neuroimaging I DGCN02	Kohn	3	Neuroimaging I DGCN02	Kohn	3	AI for Neurotechnology MKI73	Güçlütürk	3	AI for Neurotechnology MKI73	Güçlütürk	3
AI for Healthcare MKI72	Kwisthout	3	AI for Healthcare MKI72	Kwisthout	3	Intel.syst.med.Imag. IMC037	Ciompi	3	Intel.syst.med.Imag. IMC037	Ciompi	3
						Adv. Brain-Computer Interfacing MKI74	Tangermann	3	Adv. Brain-Computer Interfacing MKI74	Tangermann	3
						Sensorimotor Neurotechnology MKI79	Miller	3	Sensorimotor Neurotechnology MKI79	Miller	3

Specialisation core Interactive Agents (select 18 EC):

Human-Robot Interact.MKI70	Vastenburg	3	Human-Robot Interact.MKI70	Vastenburg	3	Com.Graph.&Com.Vis.MKI95	Güçlü	3	Com.Graph.&Com.Vis.MKI95	Güçlü	3
Text&Multimedia Mining LCEX-06	Larson	3	Text&Multimedia Mining LCEX-06	Larson	3	New media lab MKI52	Bosse	3	New media lab MKI52	Bosse	3
						Sensorimotor Neurotechnology MKI79	Miller	3	Sensorimotor Neurotechnology MKI79	Miller	3

Specialization core Societal Impact (select 18 EC):

AI for Healthcare MKI72	Kwisthout	3	AI for Healthcare MKI72	Kwisthout	3	AI for Neurotechnology MKI73	Güçlütürk	3	AI for Neurotechnology MKI73	Güçlütürk	3
Human-Robot Interact.MKI70	Vastenburg	3	Human-Robot Interact.MKI70	Vastenburg	3	Advanced Brain-Computer Interfacing MKI74	Tangermann	3	Advanced Brain-Computer Interfacing MKI74	Tangermann	3
Text&Multimedia Mining LCEX-06	Larson	3	Text&Multimedia Mining LCEX-06	Larson	3	Com.Graph.&Com.Vis.MKI95	Güçlü	3	Com.Graph.&Com.Vis.MKI95	Güçlü	3
						New media lab MKI52	Bosse	3	New media lab MKI52	Bosse	3

Specialization electives Neurotechnology and Healthcare and Interactive Agents (select 18 EC)

period 1		EC	period 2		EC	period 3		EC	period 4		EC
Inform. Retrieval NWI-I00041	Vries	3	Inform. Retrieval NWI-I00041	Vries	3	Social Neurocognition DGCN26	Toni	3	Social Neurocognition DGCN26	Toni	3
Neuromorphic Comp.MKI96	Kwisthout	3	Neuromorphic Comp.MKI96	Kwisthout	3	Autom.speech recogn.LCEX10	Ten Bosch	3	Autom.speech recogn.LCEX10	Ten Bosch	3
Complex Adaptive Systems MKI49	Gerven	3	Complex Adaptive Systems MKI49	Gerven	3	Cognition & Complexity MKI40	Donselaar	3	Cognition & Complexity MKI40	Donselaar	3
Design of Emb. Sys. NWI-I00155	Hooman	3	Design of Emb. Sys. NWI-I00155	Hooman	3	Neurophilosophy DGCN03	Haselager	3	Neurophilosophy DGCN03	Haselager	3
Intro Lang.Speech Tech REMA-LCEX19	Halteren	3	Intro Lang.Speech Tech REMA-LCEX19	Halteren	3	Natural computing NWI-IMC042	Machiori	3	Natural computing NWI-IMC042	Machiori	3
Law and Technology NWI-IMC006	Zuiderveen	3	Law and Technology IMC006	Zuiderveen	3				Bias in AI MKI77	Kleinherenbrink	3
Cognitive Robotics MKI68	Thill	3	Cognitive Robotics MKI68	Thill	3				AI Research Colloquium MKI71	Shashavari	3
The Auditory System NWI-NM102	Opstal	3	Upgrading the human NWI-FFIL215	Lemmens	3						
Neuromorphic Engineering MKI78	Shahsavari	3	Machine Hearing MKI85	Heijden van der	3						

Specialization electives Societal Impact (select 18 EC)

period 1		EC	period 2		EC	period 3		EC	period 4		EC
Law and Technology NWI-IMC006	Zuiderveen	3	Law and Technology NWI-IMC006	Zuiderveen	3	Security and Privacy of Machine Learning	Picek	3	Security and Privacy of Machine Learning	Picek	3
Innovation management NWI-FMT003E	Barzola	6	Philosophy & Ethics for Comp.&Inf.Science NV	Consoli	3				Bias in AI MKI77	Kleinherenbrink	3
Comparative Societal Questions SOW-SCS101	Tonnaer	3	Upgrading the human NWI-FFIL215	Lemmens	3						
Mobilising Change SOW-ADSM100	Koster	6	Judgement and Decision Making NWI-IMK014	de Vries	3						
Radicalisation SOW-SCS119	Spierings	6	Machine Hearing MKI85	Heijden van der	3						
Diversity in Organisations SCS210	Brink	6									
Science and Public Policy NWI-FC0043B	Halffman	3									
Science and Media NWI-FC0013C	Landeweerd	3									
Science and Societal Interaction NWI-FC002B	Born van den	3									

Free electives: 18 EC

Graduation project: Either Internship (15 EC) plus Research Project (30 EC) **or** Extended Research Project (45 EC)