Master IT Engineering - IT Systems and Security
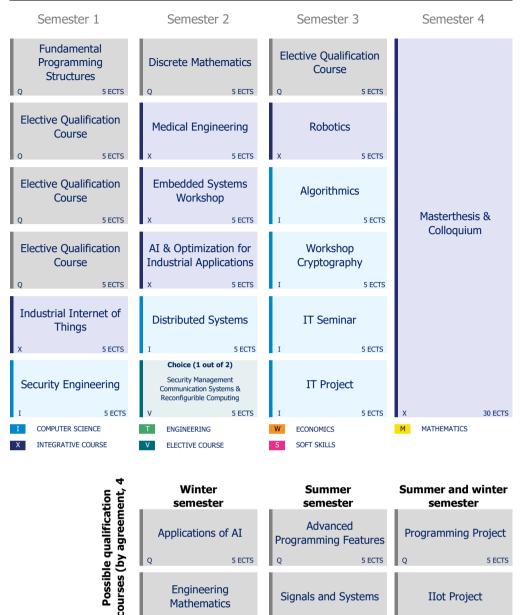## Start Winter semester (Recommendation for 180 ECTS Incomings)

fhwedel W
UNIVERSITY OF APPLIED SCIENCES

Semester 1	Semester 2	Semester 3	Semester 4
Fundamental Programming Structures — Q — 5 ECTS	Elective Qualification Course — Q — 5 ECTS	Elective Qualification Course — Q — 5 ECTS	
Discrete Mathematics — Q — 5 ECTS	Industrial Internet of Things — X — 5 ECTS	Embedded Systems Workshop — X — 5 ECTS	
Elective Qualification Course — Q — 5 ECTS	Robotics — X — 5 ECTS	AI & Optimization for Industrial Applications — X — 5 ECTS	Masterthesis & Colloquium
Elective Qualification Course — Q — 5 ECTS	Security Engineering — I — 5 ECTS	Distributed Systems — I — 5 ECTS	
Medical Engineering — X — 5 ECTS	Algorithmics — I — 5 ECTS	IT Seminar — I — 5 ECTS	
Choice (1 out of 2) Security Management / Communication Systems & Reconfigurible Computing — V — 5 ECTS	Workshop Cryptography — I — 5 ECTS	IT Project — I — 5 ECTS	X — 30 ECTS

I COMPUTER SCIENCE	**T** ENGINEERING	**W** ECONOMICS	**M** MATHEMATICS
X INTEGRATIVE COURSE	**V** ELECTIVE COURSE	**S** SOFT SKILLS	

Possible qualification courses (by agreement, 4

Summer semester	Winter semester	Summer and winter semester
Advanced Programming Features — Q — 5 ECTS	Applications of AI — Q — 5 ECTS	Programming Project — Q — 5 ECTS
Signals and Systems — Q — 5 ECTS	Engineering Mathematics — Q — 5 ECTS	IIot Project — Q — 5 ECTS

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Elective Qualification Course — Q, 5 ECTS	Medical Engineering — X, 5 ECTS	Robotics — X, 5 ECTS	
Elective Qualification Course — Q, 5 ECTS	Embedded Systems Workshop — X, 5 ECTS	Algorithmics — I, 5 ECTS	Masterthesis & Colloquium
Elective Qualification Course — Q, 5 ECTS	AI & Optimization for Industrial Applications — X, 5 ECTS	Workshop Cryptography — I, 5 ECTS	
Industrial Internet of Things — X, 5 ECTS	Distributed Systems — I, 5 ECTS	IT Seminar — I, 5 ECTS	
Security Engineering — I, 5 ECTS	**Choice (1 out of 2)** Security Management Communication Systems & Reconfigurible Computing — V, 5 ECTS	IT Project — I, 5 ECTS	X, 30 ECTS

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