Course of Study Computer Science in Engineering (Study Cohort w22)

Sample course plan D Master Computer Science in Engineering (IIWMS) Dual study program
Specialisation I. Computer Science, Specialisation II. Engineering Science, Specialisation III. Mathematics, Specialisation IV. Subject Specific Focus

Legend:

Core Qualification Compulsory	Specialisation Compulsory	Focus Compulsory	Thesis Compulsory
Core Qualification Elective Compulsory	Specialisation Elective Compulsory	Focus Elective Compulsory	Interdisciplinary complement

LP: 1–34

Column 1

Practical module 1 (dual study program, Master's degree) (LP 1–10)

Course	Type	Hours
Practical term 1		0

Software Verification (LP 11–16)

Course	Type	Hours
Software Verification	VL	2
Software Verification	GÜ	2

Software Security (LP 17–22)

Course	Type	Hours
Software Security	VL	2
Software Security	GÜ	2

Electrical Power Systems II: Operation and Information Systems of Electrical Power Grids (LP 23–28)

Course	Type	Hours
Electrical Power Systems II: Operation and Information Systems of Electrical Power Grids	VL	3
Electrical Power Systems II: Operation and Information Systems of Electrical Power Grids	HÜ	2

Linear and Nonlinear Optimization (LP 29–34)

Course	Type	Hours
Linear and Nonlinear Optimization	VL	4
Linear and Nonlinear Optimization	HÜ	1

Column 2

Practical module 2 (dual study program, Master's degree) (LP 1–10)

Course	Type	Hours
Practical term 2		0

Design of Dependable Systems (LP 11–16)

Course	Type	Hours
Designing Dependable Systems	VL	2
Designing Dependable Systems	GÜ	2

Numerical Mathematics II (LP 17–22)

Course	Type	Hours
Numerical Mathematics II	VL	2
Numerical Mathematics II	GÜ	2

Column 3

Research Project (LP 1–12)

Course	Type	Hours
Research Project IIW	PK	8

Practical module 3 (dual study program, Master's degree) (LP 13–22)

Course	Type	Hours
Practical term 3		0

Digital Signal Processing and Digital Filters (LP 23–28)

Course	Type	Hours
Digital Signal Processing and Digital Filters	VL	3
Digital Signal Processing and Digital Filters	HÜ	2

Column 4

Master thesis (dual study program) (LP 1–30)

Business & Management (from catalogue) - 6LP

Linking theory and practice (dual study program, Master's degree) (from catalogue) - 6LP

Technical Complementary Course II for Computational Science and Engineering - 12LP

Technical Complementary Course I for Computational Science and Engineering - 12LP

The choice of courses from the catalogue is flexible (depends on the semestral work load), provided the necessary number of required credits is reached.