# Course of Study Computational Science and Engineering (Study Cohort w19)

Sample course plan N  Master Computational Science and Engineering (IIWMS)
Specialisation I. Computer Science, Specialisation II. Engineering Science, Specialisation III. Mathematics, Specialisation IV. Subject Specific Focus

Legend:

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

| LP | Semester 1 | Form | Hrs/wk | Semester 2 | Form | Hrs/wk | Semester 3 | Form | Hrs/wk | Semester 4 | Form | Hrs/wk |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | **Software Security** | | | **Design of Dependable Systems** | | | **Research Project** | | | **Master Thesis** | | |
| 2 | Software Security | VL | 2 | Designing Dependable Systems | VL | 2 | Research Project IIW | PK | 8 | | | |
| 3 | Software Security | GÜ | 2 | Designing Dependable Systems | GÜ | 2 | | | | | | |
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| 6 | | | | | | | | | | | | |
| 7 | **Digital Communications** | | | **Information Theory and Coding** | | | | | | | | |
| 8 | Digital Communications | VL | 2 | Information Theory and Coding | VL | 3 | | | | | | |
| 9 | Digital Communications | HÜ | 1 | Information Theory and Coding | HÜ | 1 | | | | | | |
| 10 | Laboratory Digital Communications | PR | 1 | | | | | | | | | |
| 11 | | | | | | | | | | | | |
| 12 | | | | | | | | | | | | |
| 13 | **Linear and Nonlinear Optimization** | | | **Randomised Algorithms and Random Graphs** | | | **Communication Networks** | | | | | |
| 14 | Linear and Nonlinear Optimization | VL | 4 | Randomised Algorithms and Random Graphs | VL | 2 | Communication Networks | VL | 2 | | | |
| 15 | Linear and Nonlinear Optimization | HÜ | 1 | Randomised Algorithms and Random Graphs | HÜ | 2 | Communication Networks Excercise | PBL | 1 | | | |
| 16 | | | | | | | Selected Topics of Communication Networks | PBL | 2 | | | |
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Business & Management (from catalogue) - 6LP

Non-technical Courses for Master (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.