



Field of specialization 26: Applied Superconductors Engineering

Exemplary curriculum²¹:

| | WS | | SS | |
|---|-----|-----------|-----|-----------|
| | SWS | LP | SWS | LP |
| Basic Modules of Specialization (BMS) | | | | |
| Superconducting Materials (2-term module) | 2+0 | 3 | 2+0 | 3 |
| Superconducting Magnet Technology | | | 2+1 | 4 |
| Superconducting Power Systems | 2+1 | 4 | | |
| Compulsory Modules of Specialization (CMS) | | | | |
| Superconductivity for Engineers | 3+1 | 6 | | |
| Optimal Control | 2+2 | 6 | | |
| Numerical Methods | | | 2+1 | 5 |
| or Measurement Technology (last time in WiSe 25/26*) | 2+1 | 5 | | |
| Quantum Detectors and Sensors | 3+1 | 6 | | |
| Entwurf elektrischer Maschinen | 2+1 | 5 | | |
| Elektrische Energienetze | 2+2 | 6 | | |
| or Nano- and Quantum Electronics | | | 3+1 | 6 |
| Seminar on Applied Superconductivity | | | 3 | 3 |
| Praktikum Nanoelektronik | 4 | 6 | 4 | 6 |
| or Praktikum Supraleitende Quantenelektronik | 4 | 6 | 4 | 6 |
| or Praktikum Supraleitende Materialien | 4 | 6 | 4 | 6 |
| or Robotic Winding Technology for Superconducting Wires Lab | 4 | 6 | | |
| or Noise Thermometry Lab | 4 | 6 | 4 | 6 |
| Sum (BMS+CMS) | | 30 | | 27 |

| | WS | | SS | |
|---|-----|----|-----|----|
| | SWS | LP | SWS | LP |
| Elective Modules of Specialization (EMS) | | | | |
| Recommended electives, see next page | | | | |
| ... | | | | |
| Sum (see below) | | | | |

| | WS | | SS | |
|---|-------------|----|-----|----|
| | SWS | LP | SWS | LP |
| Interdisciplinary Qualifications | | | | |
| ... | | | | |
| Sum (in total 6 LP) | 6 LP | | | |

| | | |
|------------------------|--|-----------|
| Master's Thesis | | LP |
| Master's Thesis | | 30 |

| | | |
|--|--|------------|
| Summary | | LP |
| Basic Modules of Specialization (BMS) | | 14 |
| Compulsory Modules of Specialization (CMS) | | 43 |
| Elective Modules of Specialization (EMS) | | 27 |
| Interdisciplinary Qualifications | | 6 |
| Master's Thesis | | 30 |
| Sum | | 120 |

* *Measurement Technology* will be offered for the last time in winter term 25/26 as a video recording with additional speaking lessons for exam preparation. It is no longer a compulsory module, but may still be used as such. The first examination can be taken for the last time in winter term 26/27.

²¹ Modules that are listed in two semesters, must be taken only once (except 2-term modules). (D) means the lecture is in German, (E) – in English. If several practical courses are listed, only one is to be chosen. The corresponding credit points are only added to the sum (BMS+CMS) in one semester.