

## List of modules

|   | <b>Compulsory /<br/>Elective</b> | <b>Credits</b>  |
|---|----------------------------------|-----------------|
| <b>Fundamentals</b>                             |                                  | <b>48</b>       |
| F1 Fundamentals of Functional Materials         | Compulsory                       | 6               |
| F2 Quantum Theory of Functional Materials       | Compulsory                       | 6               |
| F3 Basic Laboratory                             | Compulsory                       | 12              |
| F4 Functional Materials Laboratory              | Compulsory                       | 12              |
| F5 Research Laboratory                          | Compulsory                       | 12              |
| <b>Elective</b>                                 |                                  | <b>30 or 36</b> |
| B1 Methods in Material Science 1                | Elective                         | 6               |
| B2 Methods in Material Science 2                | Elective                         | 6               |
| B5 Molecular Materials 1                        | Elective                         | 6               |
| B6 Molecular Materials 2                        | Elective                         | 6               |
| B7 Solid State Spectroscopy 1                   | Elective                         | 6               |
| B8 Solid State Spectroscopy 2                   | Elective                         | 6               |
| B9 Quantum Technology                           | Elective                         | 6               |
| B10 Quantum Chemistry                           | Elective                         | 6               |
| B11 Nanophysics and Nanotechnology              | Elective                         | 6               |
| B12 Methods of Materials Characterization       | Elective                         | 6               |
| B13 Selected Topics in Functional Materials 1   | At least one of<br>B13 and B17   | 6               |
| B16 Numerical Methods                           | Elective                         | 6               |
| B17 Selected Topics in Functional Materials 2   | At least one of<br>B13 and B17   | 6               |
| B18 Chemical Synthesis                          | Elective                         | 6               |
| B19 Concepts of Functional Materials 1          | Elective                         | 6               |
| B20 Concepts of Functional Materials 2          | Elective                         | 6               |
| B21 Advanced Concepts of Functional Materials 1 | Elective                         | 6               |
| B22 Advanced Concepts of Functional Materials 2 | Elective                         | 6               |
| <b>Profile</b>                                  |                                  | <b>6 or 12</b>  |
| Key Skills                                      | Elective                         | 6               |
| Import modules listed in Appendix 3             | Elective                         | 6 or 12         |
| <b>Pre-graduation</b>                           |                                  | <b>30</b>       |
| F6 Master Thesis and Defense                    | Compulsory                       | 30              |
| <b>Total</b>                                    |                                  | <b>120</b>      |

The credits given in the right column correlate with the workload.