

# Course of Study Product Development, Materials and Production (Study Cohort w23)

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

Sample course plan F Master Product Development, Materials and Production (PEPMS)

|   |   |  |  |  |  |   |  |               |
|---|---|--|--|--|--|---|--|---------------|
| Specialisation Production                               |   |  |  |  |  |   |  |               |
| 1   | <b>Vibration Theory</b><br>Vibration Theory<br>IV 4   |  |  | <b>Practical Course Product Development, Materials and Production</b><br>Practical Course Product Development, Materials and Production<br>PR 6                                  |  | <b>Research Project Product Development, Materials and Production</b>   |  | Master Thesis |
| 2   |   |  |  |  |  |   |  |               |
| 3   |   |  |  |  |  |   |  |               |
| 4   |   |  |  |  |  |   |  |               |
| 5   |   |  |  |  |  |   |  |               |
| 6   |   |  |  |  |  |   |  |               |
| 7   | <b>Finite Elements Methods</b><br>Finite Element Methods<br>VL 2<br>Finite Element Methods<br>HÜ 2  |  |  | <b>Automation Technology and Systems</b><br>Automation Technology and Systems<br>VL 4<br>Automation Technology and Systems<br>GÜ 1<br>Automation Technology and Systems<br>PBL 1 |  |   |  |               |
| 8   |   |  |  |  |  |   |  |               |
| 9   |   |  |  |  |  |   |  |               |
| 10  |   |  |  |  |  |   |  |               |
| 11  |   |  |  |  |  |   |  |               |
| 12  |   |  |  |  |  |   |  |               |
| 13  | <b>Production Planning &amp; Control and Digital Enterprise</b><br>Production Planning and Control<br>VL 2<br>Production Planning and Control<br>GÜ 1<br>The Digital Enterprise<br>VL 2<br>Exercise: The Digital Enterprise<br>GÜ 1 |  |  | <b>High-Order FEM</b><br>High-Order FEM<br>VL 3<br>High-Order FEM<br>HÜ 1  |  | <b>Selected Topics of Product Development, Materials Science and Production (Alternative A: 12 LP) (part 2)</b><br>Selection from a catalog |  |               |
| 14  |   |  |  |  |  |   |  |               |
| 15  |   |  |  |  |  |   |  |               |
| 16  |   |  |  |  |  |   |  |               |
| 17  |   |  |  |  |  |   |  |               |
| 18  |   |  |  |  |  |   |  |               |
| 19  | <b>Laser Systems and Methods of Manufacturing Design and Analysis</b><br>Methods for Analysing Production Processes<br>VL 2<br>Laser Systems and Process Technologies<br>VL 2   |  |  | <b>Selected Topics of Product Development, Materials Science and Production (Alternative A: 12 LP) (part 1)</b><br>Selection from a catalog                                      |  | <b>Robotics</b><br>Robotics: Modelling and Control<br>IV 4<br>Robotics: Modelling and Control<br>PBL 2                                      |  |               |
| 20  |   |  |  |  |  |   |  |               |
| 21  |   |  |  |  |  |   |  |               |
| 22  |   |  |  |  |  |   |  |               |
| 23  |   |  |  |  |  |   |  |               |
| 24  |   |  |  |  |  |   |  |               |
| 25  | <b>Thermal Energy Systems</b><br>Thermal Energy Systems<br>VL 3<br>Thermal Energy Systems<br>HÜ 1   |  |  |  |  |   |  |               |
| 26  |   |  |  |  |  |   |  |               |
| 27  |   |  |  |  |  |   |  |               |
| 28  |   |  |  |  |  |   |  |               |
| 29  |   |  |  |  |  |   |  |               |
| 30  |   |  |  |  |  |   |  |               |
| Business & Management (from catalogue) - 6LP            |   |  |  |  |  |   |  |               |
| Non-technical Courses for Master (from catalogue) - 6LP |   |  |  |  |  |   |  |               |

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

