

# Course of Study Mechanical Engineering and Management (Study Cohort w20)

Sample course plan B Master Mechanical Engineering and Management (IMPMEM)  
Specialisation Product Development and Production, Specialisation Materials

Legend:

|  |                                    |                           |                              |
|--|------------------------------------|---------------------------|------------------------------|
| 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   | <b>Robotics</b>  |             | <b>Fibre-polymer-composites</b>  |             | <b>Research Project IMPMEM</b> |             | <b>Master Thesis</b> |             |
| 2   | Robotics: Modelling and Control  | VL 3        | Design with fibre-polymer-composites   | VL 2        |                                |             |                      |             |
| 3   | Robotics: Modelling and Control  | UE 2        | Structure and properties of fibre-polymer-composites   | VL 2        |                                |             |                      |             |
| 4   |  |             |  |             |                                |             |                      |             |
| 5   |  |             |  |             |                                |             |                      |             |
| 6   |  |             |  |             |                                |             |                      |             |
| 7   | <b>Computer Aided Design and Computation</b>   |             | <b>Selected Topics of Mechanical Engineering and Management (Alternative B: 6 CP) (part 2)</b> |             |                                |             |                      |             |
| 8   | Computer Aided Design and Computation  | VL 2        | Selection from a catalog   |             |                                |             |                      |             |
| 9   | Computer Aided Design and Computation  | UE 2        |  |             |                                |             |                      |             |
| 10  |  |             | <b>Applied Design Methodology in Mechatronics</b>  |             |                                |             |                      |             |
| 11  |  |             | Applied Design Methodology in Mechatronics   | VL 2        |                                |             |                      |             |
| 12  |  |             |  |             |                                |             |                      |             |
| 13  | <b>Marketing and Communication</b>   |             | Applied Design Methodology in Mechatronics   | PBL 3       | <b>3D Printing Laboratory</b>  |             |                      |             |
| 14  | Business-to-Business Marketing   | VL 2        |  |             | 3D Printing Laboratory         | PR 3        |                      |             |
| 15  | Intercultural Management and Communication   | VL 2        |  |             |                                |             |                      |             |
| 16  |  |             | <b>Additive Production</b>   |             |                                |             |                      |             |
| 17  | Case Studies of Marketing and Communication  | UE 2        | Additive Production  | VL 2        |                                |             |                      |             |
| 18  |  |             | Additive Production  | SE 2        |                                |             |                      |             |
| 19  |  |             |  |             |                                |             |                      |             |
| 20  | <b>Selected Topics of Mechanical Engineering and Management (Alternative B: 6 CP) (part 1)</b> |             |  |             |                                |             |                      |             |
| 21  | Selection from a catalog   |             |  |             |                                |             |                      |             |
| 22  |  |             |  |             |                                |             |                      |             |
| 23  | <b>Advanced Functional Materials</b>   |             | <b>Mechanical Properties</b>   |             |                                |             |                      |             |
| 24  | Advanced Functional Materials  | SE 2        | Mechanical Behaviour of Brittle Materials  | VL 2        |                                |             |                      |             |
| 25  |  |             | Dislocation Theory of Plasticity   | VL 2        |                                |             |                      |             |
| 26  |  |             |  |             |                                |             |                      |             |
| 27  |  |             |  |             |                                |             |                      |             |
| 28  |  |             | <b>Processing of fibre-polymer-composites</b>  |             |                                |             |                      |             |
| 29  |  |             | From Molecule to Composites Part   | PBL 2       |                                |             |                      |             |
| 30  |  |             | Processing of fibre-polymer-composites   | VL 2        |                                |             |                      |             |
| 31  |  |             |  |             |                                |             |                      |             |
| 32  |  |             |  |             |                                |             |                      |             |
| 33  |  |             |  |             |                                |             |                      |             |
| 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.

