

# Course of Study Naval Architecture (Study Cohort w17)

Sample course plan - Bachelor Naval Architecture (SBBS)

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  | Semester 5  | Form | Hrs/wk | Semester 6  | Form | Hrs/wk |                                  |
|----|--|------|---|--|------|--|---|------|---|--|------|---|---|------|--------|---|------|--------|----------------------------------|
| 1  | <b>Basics of Electrical Engineering</b>          | VL   | 3   | <b>Fundamentals of Materials Science (part 2)</b>    | VL   | 2  | <b>Advanced Mechanical Engineering Design (part 1)</b>      | VL   | 2   | <b>Advanced Mechanical Engineering Design (part 2)</b>                                   | VL   | 2   | <b>Stochastics and Ship Dynamics (part 1)</b>               | VL   | 2      | <b>Stochastics and Ship Dynamics (part 2)</b>               | VL   | 2      |                                  |
| 2  |  |      |   |  |      |  |   |      |   |  |      |   |   |      |        |   |      |        | Basics of Electrical Engineering |
| 3  | Basics of Electrical Engineering                 | UE   | 2   | <b>Fundamentals of Mechanical Engineering Design</b> | VL   | 2  | <b>Mechanical Engineering: Design (part 1)</b>              | VL   | 2   | <b>Mechanical Engineering: Design (part 2)</b>   | PBL  | 2   | <b>Computational Fluid Dynamics I</b>                       | VL   | 2      | <b>Structural Design and Construction of Ships (part 2)</b> | VL   | 2      |                                  |
| 4  |  |      | Fundamentals of Mechanical Engineering Design |  |      |  |   |      |   |  |      |   |   |      |        |   |      |        | Embodiment Design and 3D-CAD     |
| 5  |  |      |   | HÜ   | 2    | <b>Foundations of Management</b>   | VL  | 3    | <b>Hydrostatics and Body Plan (part 2)</b>                  | VL   | 2    | <b>Fundamentals of Ship Structural Design and Analysis</b>                            | VL  | 2    | HÜ     | 2   | UE   | 2      |                                  |
| 6  |  |      | Fundamentals of Mechanical Engineering Design |  |      |  |   |      |   |  |      |   |   |      |        |   |      |        | Management Tutorial              |
| 7  | <b>Computer Science for Mechanical Engineers</b> | VL   | 2   | <b>Technical Thermodynamics I</b>                    | VL   | 2  | <b>Mathematics III</b>                                      | VL   | 2   | <b>Fluid Dynamics</b>  | VL   | 3   | Fundamentals of Ship Structural Design                      | UE   | 1      | HÜ  | 2    | UE     | 2                                |
| 8  |  |      |   |  |      |  |   |      |   |  |      |   |   |      |        |   |      |        |                                  |
| 9  | Computer Science for Mechanical Engineers        | UE   | 2   | HÜ   | 1    | <b>Mathematics IV</b>  | VL  | 2    | <b>Structural Design and Construction of Ships (part 1)</b> | VL   | 2    | Fundamentals of Ship Structural Analysis  | UE  | 1    | HÜ     | 2   | UE   | 1      | 2                                |
| 10 | Computer Science for Mechanical Engineers        | HÜ   | 1   |  |      |  |   |      |   |  |      |   |   |      |        |   |      |        |                                  |
| 11 | Computer Science for Mechanical Engineers        | HÜ   | 1   | UE   | 1    | <b>Mathematics IV</b>  | VL  | 2    | <b>Structural Design and Construction of Ships (part 1)</b> | VL   | 3    | Fundamentals of Ship Structural Design  | UE  | 1    | HÜ     | 2   | UE   | 1      | 2                                |
| 12 | Computer Science for Mechanical Engineers        | HÜ   | 1   |  |      |  |   |      |   |  |      |   |   |      |        |   |      |        |                                  |
| 13 | <b>Mathematics I</b>                             | VL   | 2   | <b>Mechanics II: Mechanics of Materials</b>          | VL   | 2  | <b>Mathematics III</b>                                      | VL   | 2   | <b>Mathematics IV</b>  | VL   | 2   | <b>Structural Design and Construction of Ships (part 1)</b> | VL   | 3      | <b>Bachelor Thesis</b>                                      |      |        |                                  |
| 14 |  |      |   |  |      |  |   |      |   |  |      |   |   |      |        |   |      |        |                                  |
| 15 | Linear Algebra I                                 | UE   | 1   | HÜ   | 2    | <b>Mathematics IV</b>  | VL  | 2    | <b>Structural Design and Construction of Ships (part 1)</b> | VL   | 2    | Fundamentals of Ship Structural Design  | UE  | 1    | HÜ     | 2   | UE   | 1      | 2                                |
| 16 | Linear Algebra I                                 | HÜ   | 1   |  |      |  |   |      |   |  |      |   |   |      |        |   |      |        |                                  |
| 17 | Analysis I                                       | VL   | 2   | HÜ   | 2    | <b>Mathematics IV</b>  | VL  | 2    | <b>Structural Design and Construction of Ships (part 1)</b> | VL   | 2    | Fundamentals of Ship Structural Design  | UE  | 1    | HÜ     | 2   | UE   | 1      | 2                                |
| 18 | Analysis I                                       | UE   | 1   |  |      |  |   |      |   |  |      |   |   |      |        |   |      |        |                                  |
| 19 | Analysis I                                       | UE   | 1   | HÜ   | 2    | <b>Mathematics IV</b>  | VL  | 2    | <b>Structural Design and Construction of Ships (part 1)</b> | VL   | 2    | Fundamentals of Ship Structural Design  | UE  | 1    | HÜ     | 2   | UE   | 1      | 2                                |
| 20 | Analysis I                                       | HÜ   | 1   |  |      |  |   |      |   |  |      |   |   |      |        |   |      |        |                                  |
| 21 | <b>Mechanics I (Statics)</b>                     | VL   | 2   | <b>Mathematics II</b>                                | VL   | 2  | <b>Mechanics III (Hydrostatics, Kinematics, Kinetics I)</b> | VL   | 3   | <b>Mechanics IV (Kinetics II, Oscillations, Analytical Mechanics, Multibody Systems)</b> | VL   | 3   | <b>Marine Propulsion</b>                                    | VL   | 1      | <b>Bachelor Thesis</b>                                      |      |        |                                  |
| 22 |  |      |   |  |      |  |   |      |   |  |      |   |   |      |        |   |      |        |                                  |
| 23 | Mechanics I                                      | HÜ   | 1   | HÜ   | 1    | <b>Mechanics IV (Kinetics II, Oscillations, Analytical Mechanics, Multibody Systems)</b> | VL  | 3    | <b>Marine Propulsion</b>                                    | VL   | 2    | Fundamentals of Reciprocating Engines and Turbomachinery - Part Reciprocating Engines | HÜ  | 1    | HÜ     | 2   | UE   | 1      | 2                                |
| 24 |  |      |   |  |      |  |   |      |   |  |      |   |   |      |        |   |      |        |                                  |
| 25 |  |      |   | UE   | 1    | <b>Mechanics IV (Kinetics II, Oscillations, Analytical Mechanics, Multibody Systems)</b> | VL  | 3    | <b>Marine Propulsion</b>                                    | VL   | 2    | Fundamentals of Reciprocating Engines and Turbomachinery - Part Reciprocating Engines | HÜ  | 1    | HÜ     | 2   | UE   | 1      | 2                                |
| 26 |  |      |   |  |      |  |   |      |   |  |      |   |   |      |        |   |      |        |                                  |
| 26 |  |      |   | Analysis II  | UE   | 1  | Mechanics IV  | HÜ   | 1   | Mechanics IV   | HÜ   | 1   | Fundamentals of Marine Engineering                          | HÜ   | 1      | Fundamentals of Marine Engineering                          | HÜ   | 1      |                                  |

|   |   |  |  |  |
|---|---|--|--|--|
| 27  | <b>Fundamentals of Materials Science (part 1)</b><br>Fundamentals of Materials Science I VL 2 | <b>Hydrostatics and Body Plan (part 1)</b><br>Body Plan PS 2 | <b>Resistance and Propulsion</b><br>Resistance and Propulsion VL 2<br>Resistance and Propulsion HÜ 2 |  |
| 28  |   |  |  |  |
| 29  | Physical and Chemical Basics of Materials Science VL 2  |  |  |  |
| 30  |   |  |  |  |
| 31  |   |  |  |  |
| 32  |   |  |  |  |
| Nontechnical Complementary Courses for Bachelors (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.