

# Course of Study Naval Architecture (Study Cohort w22)

Legend:

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

Sample course plan - Bachelor Naval Architecture (SBBS)

|    |   |                       |  |   |  |  |   |
|----|---|-----------------------|--|---|--|--|---|
| 1  | <b>Basics of Electrical Engineering</b>                           |                       | <b>Fundamentals of Materials Science (part 2)</b>    | <b>Advanced Mechanical Engineering Design (part 1)</b>                | <b>Advanced Mechanical Engineering Design (part 2)</b> | <b>Stochastics and Ship Dynamics (part 1)</b>  | <b>Stochastics and Ship Dynamics (part 2)</b>               |
| 2  | Basics of Electrical Engineering VL 3                             |                       | Fundamentals of Materials Science II VL 2            | Advanced Mechanical Engineering Design I VL 2                         | Advanced Mechanical Engineering Design II VL 2         | Statistics and Stochastic Processes in Naval VL 2  | Ship Dynamics VL 2  |
| 3  | Basics of Electrical Engineering GÜ 2                             |                       |  | Advanced Mechanical Engineering Design I HÜ 2                         | Advanced Mechanical Engineering Design II HÜ 2         | Architecture and Ocean Engineering   | Ship Dynamics GÜ 1  |
| 4  |   |                       | <b>Fundamentals of Mechanical Engineering Design</b> | <b>Mechanical Engineering: Design (part 1)</b>                        | <b>Mechanical Engineering: Design (part 2)</b>         | <b>Computational Fluid Dynamics I</b>  |   |
| 5  |   |                       | Fundamentals of Mechanical Engineering Design VL 2   | Embodiment Design and 3D-CAD Introduction and Practical Training VL 2 | Team Project Design Methodology PBL 2                  | Computational Fluid Dynamics I VL 2  |   |
| 6  |   |                       | Fundamentals of Mechanical Engineering Design HÜ 2   | Mechanical Design Project I PBL 3                                     | Mechanical Design Project II PBL 3                     | Computational Fluid Dynamics I HÜ 2  | <b>Structural Design and Construction of Ships (part 2)</b> |
| 7  | <b>Mathematics I</b>  |                       |  | <b>Foundations of Management</b>                                      | <b>Hydrostatics and Body Plan (part 2)</b>             |  | Ship Structural Design VL 2                                 |
| 8  | Mathematics I VL 4  |                       |  | Introduction to Management VL 3                                       | Hydrostatics VL 2                                      |  | Ship Structural Design GÜ 2                                 |
| 9  | Mathematics I HÜ 2  |                       | <b>Technical Thermodynamics I</b>                    | Management Tutorial GÜ 2  | Hydrostatics HÜ 2                                      |  |   |
| 10 | Mathematics I GÜ 2  |                       | Technical Thermodynamics I VL 2                      |   |  |  |   |
| 11 |   |                       | Technical Thermodynamics I HÜ 1                      |   | <b>Fluid Dynamics</b>                                  | <b>Fundamentals of Ship Structural Design and Analysis</b>                                 |   |
| 12 |   |                       | Technical Thermodynamics I GÜ 1                      |   | Fluid Mechanics VL 3                                   | Fundamentals of Ship Structural Design VL 2  | <b>Ship Design</b>  |
| 13 |   |                       |  |   | Fluid Mechanics HÜ 2                                   | Fundamentals of Ship Structural Design GÜ 1  | Ship Design VL 2  |
| 14 |   |                       |  | <b>Mathematics III</b>  |  | Fundamentals of Ship Structural Analysis GÜ 1  | Ship Design HÜ 2  |
| 15 | <b>Fundamentals of Materials Science (part 1)</b>                 |                       |  | Analysis III VL 2   |  |  |   |
| 16 | Fundamentals of Materials Science I VL 2                          | <b>Mathematics II</b> |  | Analysis III GÜ 1   | <b>Mathematics IV</b>                                  | <b>Structural Design and Construction of Ships (part 1)</b>                                |   |
| 17 | Physical and Chemical Basics of Materials Science VL 2            | Mathematics II VL 4   |  | Analysis III HÜ 1   | Complex Functions VL 2                                 | Welding Technology VL 3  |   |
| 18 |   | Mathematics II HÜ 2   |  | Differential Equations 1 VL 2   | Complex Functions GÜ 1                                 |  |   |
| 19 | <b>Computer Science for Engineers - Introduction and Overview</b> | Mathematics II GÜ 2   |  | Differential Equations 1 GÜ 1   | Complex Functions HÜ 1                                 |  |   |
| 20 | Computer Science for Engineers - Introduction and Overview VL 3   |                       | <b>Engineering Mechanics II (Elastostatics)</b>      | Differential Equations 2 VL 2   | Differential Equations 2 VL 2                          | <b>Marine Propulsion</b>   |   |
| 21 | Computer Science for Engineers - Introduction and Overview GÜ 2   |                       | Engineering Mechanics II VL 2                        | <b>Engineering Mechanics III (Dynamics)</b>                           | Differential Equations 2 GÜ 1                          | Fundamentals of Reciprocating Engines and Turbomachinery - Part Reciprocating Engines VL 1 |   |
| 22 |   |                       | Engineering Mechanics II HÜ 2                        | Engineering Mechanics III VL 3  | Differential Equations 2 HÜ 1                          | Fundamentals of Reciprocating Engines and Turbomachinery - Part Reciprocating Engines HÜ 1 |   |
| 23 |   |                       |  | Engineering Mechanics III GÜ 2  |  | Fundamentals of Marine Engineering VL 2  |   |
| 24 | <b>Engineering Mechanics I (Stereostatics)</b>                    |                       |  | Engineering Mechanics III HÜ 1  | <b>Computational Mechanics</b>                         | Fundamentals of Marine Engineering HÜ 1  |   |
| 25 | Engineering Mechanics I VL 2                                      |                       |  |   | Computational Multibody Dynamics IV 2                  |  |   |
| 26 | Engineering Mechanics I GÜ 2                                      |                       |  |   | Computational Mechanics GÜ 2                           |  |   |
| 27 | Engineering Mechanics I HÜ 1                                      |                       |  |   | Computational Structural Mechanics IV 2                |  |   |
| 28 |   |                       |  |   |  | <b>Resistance and Propulsion</b>   |   |
| 29 |   |                       |  |   |  | Resistance and Propulsion VL 2   |   |
| 30 |   |                       |  |   |  | Resistance and Propulsion HÜ 2   |   |
| 31 |   |                       |  |   |  |  |   |
| 32 |   |                       |  |   |  |  |   |

Non-technical 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.

