

# Course of Study General Engineering Science (English program, 7 semester) (Study Cohort w17)

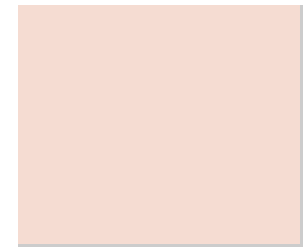
Sample course plan A Bachelor General Engineering Science (English program, 7 semester) (GESBS(7))  
Specialisation Electrical Engineering

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 | Semester 2                        | Form | Hrs | Semester 3                         | Form | Hrs | Semester 4  | Form | Hrs | Semester 5  | Form | Hrs | Semester 6                                       | Form | Hrs | Semester 7                     | Form | Hrs/wk |                          |    |   |                            |    |   |                             |    |   |   |    |   |  |     |   |   |     |   |  |
|----|---------------------------------|------|-----|-----------------------------------|------|-----|------------------------------------|------|-----|---|------|-----|---|------|-----|--|------|-----|--------------------------------|------|--------|--------------------------|----|---|----------------------------|----|---|-----------------------------|----|---|---|----|---|--|-----|---|---|-----|---|--|
| 1  | <b>Chemistry (GES)</b>          |      |     | <b>Technical Thermodynamics I</b> |      |     | <b>Technical Thermodynamics II</b> |      |     | <b>Theoretical Electrical Engineering I: Time-Independent Fields</b>      |      |     | <b>Introduction to Control Systems</b>                          |      |     | <b>Foundations of Management</b>                 |      |     | <b>Advanced Internship GES</b> |      |        |                          |    |   |                            |    |   |                             |    |   |   |    |   |  |     |   |   |     |   |  |
| 2  |                                 |      |     |                                   |      |     |                                    |      |     |   |      |     |   |      |     |  |      |     |                                |      |        | Chemistry I              | VL | 2 | Technical Thermodynamics I | VL | 2 | Technical Thermodynamics II | VL | 3 | Introduction to Control Systems                               | VL | 2 | Introduction to Management                               | VL  | 3 |   |     |   |  |
| 3  |                                 |      |     |                                   |      |     |                                    |      |     |   |      |     |   |      |     |  |      |     |                                |      |        | Chemistry II             | VL | 2 | Technical Thermodynamics I | HÜ | 1 | Technical Thermodynamics II | VL | 2 | Theoretical Electrical Engineering I: Time-Independent Fields | VL | 3 | Introduction to Control Systems                          | VL  | 2 | Management Tutorial                       | HÜ  | 2 |  |
| 4  |                                 |      |     |                                   |      |     |                                    |      |     |   |      |     |   |      |     |  |      |     |                                |      |        | Chemistry I              | HÜ | 1 | Technical Thermodynamics I | HÜ | 1 | Technical Thermodynamics II | HÜ | 1 | Theoretical Electrical Engineering I: Time-Independent Fields | UE | 2 | Introduction to Control Systems                          | UE  | 2 |   |     |   |  |
| 5  |                                 |      |     |                                   |      |     |                                    |      |     |   |      |     |   |      |     |  |      |     |                                |      |        | Chemistry II             | HÜ | 1 | Technical Thermodynamics I | UE | 1 | Technical Thermodynamics II | HÜ | 1 | Theoretical Electrical Engineering I: Time-Independent Fields | UE | 2 |  |     |   |   |     |   |  |
| 6  |                                 |      |     |                                   |      |     |                                    |      |     |   |      |     |   |      |     |  |      |     |                                |      |        |                          |    |   |                            |    |   |                             |    |   |   |    |   |  |     |   |   |     |   |  |
| 7  | <b>Linear Algebra</b>           |      |     | <b>Mathematical Analysis</b>      |      |     | <b>Mathematics III</b>             |      |     | <b>Signals and Systems</b>  |      |     | <b>Introduction to Communications and Random Processes</b>      |      |     | <b>Electrical Engineering Project Laboratory</b> |      |     |                                |      |        |                          |    |   |                            |    |   |                             |    |   |   |    |   |  |     |   |   |     |   |  |
| 8  |                                 |      |     |                                   |      |     |                                    |      |     |   |      |     |   |      |     |  |      |     |                                |      |        | Linear Algebra           | VL | 4 | Mathematical Analysis      | VL | 4 | Analysis III                | VL | 2 | Signals and Systems   | VL | 3 | Introduction to Communications and Random Processes      | VL  | 3 | Electrical Engineering Project Laboratory | PBL | 8 |  |
| 9  |                                 |      |     |                                   |      |     |                                    |      |     |   |      |     |   |      |     |  |      |     |                                |      |        | Linear Algebra           | HÜ | 2 | Mathematical Analysis      | HÜ | 2 | Analysis III                | UE | 1 | Signals and Systems   | UE | 2 | Introduction to Communications and Random Processes      | HÜ  | 1 |   |     |   |  |
| 10 |                                 |      |     |                                   |      |     |                                    |      |     |   |      |     |   |      |     |  |      |     |                                |      |        | Linear Algebra           | UE | 2 | Mathematical Analysis      | UE | 2 | Analysis III                | HÜ | 1 |   |    |   | Introduction to Communications and Random Processes      | HÜ  | 1 |   |     |   |  |
| 11 |                                 |      |     |                                   |      |     |                                    |      |     |   |      |     |   |      |     |  |      |     |                                |      |        |                          |    |   |                            |    |   | Differential Equations 1    | VL | 2 |   |    |   | Introduction to Communications and Random Processes      | HÜ  | 1 |   |     |   |  |
| 12 |                                 |      |     |                                   |      |     |                                    |      |     |   |      |     |   |      |     |  |      |     |                                |      |        |                          |    |   |                            |    |   | Differential Equations 1    | UE | 1 |   |    |   |  |     |   |   |     |   |  |
| 13 | <b>Electrical Engineering I</b> |      |     | <b>Electrical Engineering II</b>  |      |     | <b>Mechanics III (GES)</b>         |      |     | <b>Electrical Engineering IV: Transmission Lines and Research Seminar</b> |      |     | <b>Electronic Devices</b>                                       |      |     | <b>Semiconductor Circuit Design</b>              |      |     |                                |      |        |                          |    |   |                            |    |   |                             |    |   |   |    |   |  |     |   |   |     |   |  |
| 14 |                                 |      |     |                                   |      |     |                                    |      |     |   |      |     |   |      |     |  |      |     |                                |      |        |                          |    |   |                            |    |   |                             |    |   |   |    |   |  |     |   |   |     |   |  |
| 15 |                                 |      |     |                                   |      |     |                                    |      |     |   |      |     |   |      |     |  |      |     |                                |      |        | Electrical Engineering I | VL | 3 | Electrical Engineering II  | VL | 3 | Mechanics III               | HÜ | 1 | Transmission Line Theory                                      | VL | 2 | Electronic Devices                                       | VL  | 3 | Semiconductor Circuit Design              | VL  | 3 |  |
| 16 |                                 |      |     |                                   |      |     |                                    |      |     |   |      |     |   |      |     |  |      |     |                                |      |        | Electrical Engineering I | UE | 2 | Electrical Engineering II  | UE | 2 | Mechanics III               | UE | 2 | Research Seminar  | SE | 2 | Electronic Devices                                       | PBL | 2 | Semiconductor Circuit Design              | UE  | 1 |  |
| 17 |                                 |      |     |                                   |      |     |                                    |      |     |   |      |     |   |      |     |  |      |     |                                |      |        |                          |    |   |                            |    |   | Mechanics III               | VL | 3 | Electrical Engineering, Computer Science, Mathematics         |    |   |  |     |   |   |     |   |  |
| 18 |                                 |      |     |                                   |      |     |                                    |      |     |   |      |     |   |      |     |  |      |     |                                |      |        |                          |    |   |                            |    |   |                             |    |   | Transmission Line Theory                                      | HÜ | 2 |  |     |   |   |     |   |  |
| 19 | <b>Mechanics I (GES)</b>        |      |     | <b>Mechanics II (GES)</b>         |      |     | <b>Computer Engineering</b>        |      |     | <b>Materials in Electrical Engineering</b>                                |      |     | <b>Electromagnetics for Engineers II: Time-Dependent Fields</b> |      |     |  |      |     |                                |      |        |                          |    |   |                            |    |   |                             |    |   |   |    |   |  |     |   |   |     |   |  |
| 20 |                                 |      |     |                                   |      |     |                                    |      |     |   |      |     |   |      |     |  |      |     |                                |      |        |                          |    |   |                            |    |   |                             |    |   |   |    |   |  |     |   |   |     |   |  |
| 21 |                                 |      |     |                                   |      |     |                                    |      |     |   |      |     |   |      |     |  |      |     |                                |      |        | Mechanics I              | VL | 2 | Mechanics II               | VL | 2 | Computer Engineering        | VL | 3 | Materials in Electrical Engineering                           | VL | 2 | Electromagnetics for Engineers II: Time-Dependent Fields | VL  | 3 |   |     |   |  |
| 22 |                                 |      |     |                                   |      |     |                                    |      |     |   |      |     |   |      |     |  |      |     |                                |      |        | Mechanics I              | HÜ | 3 | Mechanics II               | HÜ | 2 | Computer Engineering        | UE | 1 | Materials in Electrical Engineering                           | UE | 2 | Electromagnetics for Engineers II: Time-Dependent Fields | UE  | 2 |   |     |   |  |
| 23 |                                 |      |     |                                   |      |     |                                    |      |     |   |      |     |   |      |     |  |      |     |                                |      |        |                          |    |   |                            |    |   |                             |    |   | Electrotechnical Experiments                                  | VL | 1 | Electromagnetics for Engineers II: Time-Dependent Fields | UE  | 2 |   |     |   |  |
| 24 |                                 |      |     |                                   |      |     |                                    |      |     |   |      |     |   |      |     |  |      |     |                                |      |        |                          |    |   |                            |    |   |                             |    |   |   |    |   |  |     |   |   |     |   |  |
| 25 |                                 |      |     |                                   |      |     |                                    |      |     | <b>Mathematics IV</b>   |      |     | <b>Electrical Power Systems I: Introduction to Electrical</b>   |      |     |  |      |     |                                |      |        |                          |    |   |                            |    |   |                             |    |   |   |    |   |  |     |   |   |     |   |  |
| 26 |                                 |      |     |                                   |      |     |                                    |      |     | Complex Functions   | VL   | 2   |   |      |     |  |      |     |                                |      |        |                          |    |   |                            |    |   |                             |    |   |   |    |   |  |     |   |   |     |   |  |

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|----|--|--|---|-------------------------------|---|
| 27 | <b>Programming in C</b><br>Programming in C VL 1<br>Programming in C PR 1                      | <b>Fundamentals of Mechanical Engineering (GES)</b><br>Fundamentals of Mechanical Engineering VL 2 | <b>Electrical Engineering III: Circuit Theory and Transients</b><br>Circuit Theory VL 3 | Complex Functions UE 1        | <b>Power Systems</b><br>Electrical Power Systems I: Introduction to Electrical Power Systems VL 3 |
| 28 |  |  |   | Complex Functions HÜ 1        |   |
| 29 | <b>Physics for Engineers (GES)</b><br>Physics for Engineers VL 2<br>Physics for Engineers UE 1 | Fundamentals of Mechanical Engineering UE 2  | Circuit Theory UE 2   | Differential Equations 2 UE 1 | Electrical Power Systems I: Introduction to Electrical Power Systems HÜ 2                         |
| 30 |  |  |   | Differential Equations 2 HÜ 1 |   |
| 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.