## Course of Study General Engineering Science (English program, 7 semester) (Study Cohort w18)

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

| C    | C                      | Legend:                                   | • • • •          | progr                         | aiii,            | 4    |                      |                              |                    |
|------|------------------------|---|------------------|-------------------------------|------------------|------|----------------------|------------------------------|--------------------|
|      | Core qualification     |   | Specia           | lisation Compulsory           | Focus Compulsory |      |                      | Thesis Compulsory            |                    |
|      |                        | Core qualification Elective<br>Compulsory | Specia<br>Compi  | llisation Elective<br>ulsory  | Focus Electiv    | e Co | mpulsory             | Interdisciplinary complement |                    |
| nhrs | ∕vSke                  | mester 5                                  | or <b>ith</b> rs | /wskmester 6                  | For              | Mrs  | / <b>&amp;k</b> mest | er 7                         | For <b>hh</b> rs/w |
|      |                        | troduction to Contr<br>stems              | ol               | Foundations o<br>Management   | f                |      | Advan<br>GES         | ced Internship               | AIW/               |
| 2    |                        | roduction to<br>ntrol Systems             | /L 2             | Introduction to<br>Management | VL               | 3    |                      |                              |                    |
| 2    |                        | roduction to I<br>ntrol Systems           | JE 2             | Management Tu                 | itorial UE       | 2    |                      |                              |                    |
|      | Heat and Mass Transfer |   | fer              | Chemical Reaction             |                  |      |                      |                              |                    |
| 2    |                        | at and Mass                               | /L 2             | Experimental Co               | ourse PR         | 2    |                      |                              |                    |
| 1    |                        | at and Mass I<br>ansfer                   | JE 1             | Chemical Engine               | eering           |      |                      |                              |                    |

| Mathematical Analysis   Math   | LP |                        |         |                                       |                           |                     |           |  |        |  |         |                          |
|--|----|------------------------|---------|---------------------------------------|---------------------------|---------------------|-----------|--|--------|--|---------|--------------------------|
| Chemistry   V   2   Technolar   V   2   Tech   |    | Semester 1             | Formirs | /Wikemester 2 Formirs                 | /wikemester 3 Form        | hrs/wikemester 4    | Form      | s/Weikemester 5  | ormins | /www.ester 6   | Formirs | /Workemester 7 Formitrs, |
| Chemistry  |    | Chemistry (GES)        |         |                                       |                           |                     | Fluid     |  | ol     |  |         | -                        |
| Chemistry  |    | Chemistry I            | VL 2    | -                                     | •                         |                     |           |  |        |  |         | GES                      |
| Chemistry   Ho   1   |    | Chemistry II           | VL 2    |                                       |                           |                     | id VL 2   |  | VL 2   |  | VL 3    |                          |
| Chemistry   II   II   Thermodynamics   Thermodynamics   Thermodynamics   II   Thermody   |    | Chemistry I            | HÜ 1    | · ·                                   |                           |                     | ніі э     | •  | IF 2   | •  | HE 2    |                          |
|  |    | Chemistry II           | HÜ 1    |                                       |                           |                     |           |  | JL Z   | Management rutorial  | UL Z    |                          |
| Time   |    |                        |         | Technical UE 1                        | Technical UE              | 1                   |           |  |        |  |         |                          |
| Linear Algebra   V.   A Mathematical Analysis   V.   A Canalysis   V.   Linear Algebra   V.   A Mathematical Analysis   V.   A Canalysis   V.   Linear Algebra   V.   A Mathematical Analysis   V.   A Canalysis   V.   Linear Algebra   V.   A Mathematical Analysis   V.   A Canalysis   V.   Linear Algebra   V.   A Mathematical Analysis   V.   A Canalysis   V.   Linear Algebra   V.   A Mathematical Analysis   V.   Linear Algebra   V.   Li   |    |                        |         | Thermodynamics I                      | Thermodynamics II         |                     |           |  |        |  |         |                          |
|  | -  | Linear Algebra         |         | Mathematical Analysis                 | Mathematics III           | Phase Equilibria    |           | Heat and Mass Transf   | fer    | Chemical Reaction  |         |                          |
| Unear Algebra  | 8  | _                      | VL 4    | <u>-</u>                              |                           |                     |           |  |        |  | )       |                          |
| Linear Algebra  Linear Algebra |    |                        | HÜ 2    | · · · · · · · · · · · · · · · · · · · | •                         | _ ·                 | VL 2      | Transfer   |        | the state of the s | PR 2    |                          |
| Process and Plant   Proc   |    | Linear Algebra         | UE 2    | Mathematical Analysis UE 2            |                           | 1                   |           |  | JE 1   | Chemical Engineering   |         |                          |
| 1  | _  |                        |         | ·                                     | •                         | າ '                 | UE 1      |  |        | Process and Plant  |         |                          |
| The modynamics   The    |    |                        |         |                                       | 1                         |                     | HÜ 1      |  | HU 1   |  |         |                          |
| Differential Equations   HÛ   Signals and Systems   VL   Signals and Syst   |    |                        |         |                                       | Differential Equations UE |                     | 110 1     | Transier   |        |  | VL 2    |                          |
| Signals and Systems    |    |                        |         |                                       | 1                         |                     |           |  |        |  |         |                          |
| Signals and Systems VL 3 Processes  Flectrical Engineering I Electrical Engineering I Electrical Engineering VL 3 Environmental Technology I VL 2 Environmental Assessment I Engineering I |    |                        |         |                                       | ·                         | Signals and Syste   | ms        |  |        |  | HU 1    |                          |
| Signals and Systems   UE 2   Processes     | 14 |                        |         |                                       | -                         | Signals and Systems | VL 3      |  |        |  | HF 1    |                          |
| Electrical Engineering   Computer Engineeri   |    |                        |         |                                       |                           | Signals and Systems | S UE 2    | The state of the s | VL 2   |  | OL I    |                          |
| Electrical Engineering   VL 3   Electrical Engineering   VL 3   II   Mechanics   II   UE 2   Electrical Engineering   VL 3   II   Mechanics   II   UE 2   Electrical Engineering   UE 2   Mechanics   U   |    | Electrical Engineering | g I     | Electrical Engineering II             | Mechanics III (GES)       |                     |           | •  | JE 2   | Particle Technology  | and     |                          |
| Electrical Engineering UE 2 Mechanics II VL 2 Mechanics II VL 2 Environmental Technology I VL 2 Chemical Reaction Engineering VL 2 Environmental Technology I VL 2 Chemical Reaction Engineering VL 2 Environmental Technology I VL 2 Chemical Reaction Engineering VL 2 Environmental Technology I VL 2 Chemical Reaction Engineering VL 2 Environmental Technology Environmental Technology Environmental Assessment VL 2 Microbiology PBL I Engineering VL 2 Environmental Technology Environmental Assessment VL 2 Environmental Environmental Assessment VL 2 Environmental Environmental Environmental Assessment VL 2 Environmental Environmental Environmental Environmental Environmental Assessment VL 2 Environmental Environmental VL 2 Environmental Environmental Environmental Environmental Environmental Environmental Environmental Environmental Environmenta |    | Electrical Engineering | VL 3    | Electrical Engineering VL 3           | Mechanics III HÜ          | 1                   |           |  | ıü. 1  |  |         |                          |
| Electrical Engineering UE 2 II   |    | . 1                    |         | II                                    | Mechanics III UE          | 2                   |           | •  | 10 1   |  |         |                          |
| Biochemistry and Microbiology  Mechanics I (GES)  Mechanics I VL 2  Mechanics I Wechanics I Wechanics II Wech | 10 | Electrical Engineering | UE 2    | Electrical Engineering UE 2           | Mechanics III VL          | 3                   |           |  | PR 1   |  |         |                          |
| Biochemistry and Microbiology  Mechanics I (GES)  Mechanics I (GES)  Mechanics I WL 2 Mechanics II WL 2 Computer Engineering VL 3 Mechanics II WL 2 Computer Engineering VL 3 Mechanics II WL 2 Computer Engineering UE 1 Microbiology  Mechanics I WL 2 Mechanics II WL 2 Computer Engineering UE 1 Microbiology  Mechanics I WL 2 Mechanics II WL 2 Computer Engineering UE 1 Microbiology  Mechanics I WL 2 Mechanics II WL 2 Computer Engineering UE 1 Microbiology  Microbiology  Microbiology  Microbiology  Microbiology  Microbiology  PBL1  Bioprocess Engineering - Advanced  Bioprocess Engineering - Advanced  Bioprocess Engineering - Advanced  Bioprocess UL 2  Environmental VL 2 Environmental VL 2 Assessment  Environmental VL 2 Environmental VL 2 Environmental Assessment  Environmental VL 2 Environmental Assessment  Bioprocess Engineering - Advanced  Bioprocess Engineering - Advanced  Bioprocess VL 2  | 19 | I                      |         | Ш                                     |                           |                     |           |  |        |  |         |                          |
| Mechanics I (GES) Mechanics II (GES) Microbiology Microbiology Microbiology Microbiology Microbiology Microbiology Microbiology Mechanics II (Chemical Reaction Engineering Chemical Reaction (Chemical Reaction Engineering Chemical Reaction (Chemical Reaction Engineering Chemical Reaction (Chemical Reactio | 20 |                        |         |                                       |                           | -                   |           |  |        | Particle Technology I  | PK Z    | Bachelor Thesis          |
| Mechanics I VL 2 Mechanics II VL 2 Mechanics II VL 2 Computer Engineering VL 3 Mechanics II HÜ 2 Computer Engineering UE 1 Microbiology VL 2 Engineering Wicrobiology PBL1  23  24  25  26  Programming in C Fundamentals of Process  Programming in C Fundamentals of Process  Mechanics II VL 2 Computer Engineering VL 3 Microbiology VL 2 Microbiology PBL1  Microbiology VL 2 Engineering - Advanced  Bioprocess Engineering - Advanced  Bioprocess Engineering - Advanced  Bioprocess VL 2 Engineering - Advanced  Bioprocess VL 2 Biopr |    | Mechanics I (GES)      |         | Mechanics II (GES)                    | Computer Engineering      | Biochemistry        | VL 2      |  | VL 2   |  |         |                          |
| Mechanics I HU 3 Mechanics II HU 2 Computer Engineering UE 1 Microbiology PBL1 Engineering Assessment  Engineering Assessment  Engineering Assessment  Environmental UE 1 Assessment  Bioprocess Engineering - Advanced  Bioprocess VL 2 Engineering - | 22 | Mechanics I            | VL 2    | Mechanics II VL 2                     | Computer Engineering VL   | 3 Biochemistry      |           |  |        | <del>-</del> -   |         |                          |
| 23 Bioprocess Engineering - Advanced Bioprocess Engineering - Advanced Bioprocess Engineering - Advanced Bioprocess Engineering - Advanced Bioprocess VL 2 Environmental VE 1 Assessment  Programming in C Fundamentals of Fundamentals of Process Bioprocess VL 2 Bioprocess Engineering - Advanced Bioprocess VL 2 Bioprocess VL 2 Bioprocess UE 2   |    | Mechanics I            | HÜ 3    | Mechanics II HÜ 2                     | Computer Engineering UE   | _                   |           |  | HU 2   |  | VL 2    |                          |
| Bioprocess Engineering - Advanced  Bioprocess Engineering - Advanced  Bioprocess VL 2  Engineering - Advanced  Programming in C  Fundamentals of Process  Bioprocess NL 2  Engineering - Advanced  Bioprocess VL 2  | 23 |                        |         |                                       |                           | Microbiology        | PBL1      |  |        |  | UE 1    |                          |
| 24   Bioprocess Engineering - Advanced   Bioprocess   VL 2   25   Bioprocess Engineering - Advanced   Bioprocess   VL 2   27   Programming in C   Fundamentals of Process   Bioprocess   VL 2   Bioprocess   VL 2   28   Bioprocess   VL 2   Bioprocess   VL 2   29   Bioprocess   VL 2   Bioprocess   VL 2   20   Bioprocess   VL 2   Bioprocess   VL 2   21   Control of the process   VL 2   22   Control of the process   VL 2   23   Control of the process   VL 2   24   Control of the process   VL 2   25   Control of the process   VL 2   26   Control of the process   VL 2   27   Control of the process   VL 2   28   Control of the process   VL 2   29   Control of the process   VL 2   20   Control of the process   VL 2   21   Control of the process   VL 2   22   Control of the process   VL 2   23   Control of the process   VL 2   24   Control of the process   VL 2   25   Control of the process   VL 2   26   Control of the process   VL 2   26   Control of the process   VL 2   27   Control of the process   VL 2   28   Control of the process   VL 2   28   Control of the process   VL 2   29   Control of the process   VL 2   20   Control of the process   VL 2 | -  |                        |         |                                       |                           |                     |           |  | ng -   |  |         |                          |
| 25 Bioprocess Engineering - Advanced  27 Programming in C Fundamentals of Fundamentals of Process  Engineering - Advanced  Bioprocess VL 2  Bioprocess Engineering - Advanced  Bioprocess VL 2   | 24 |                        |         |                                       |                           |                     |           |  | VI 2   |  |         |                          |
| 26 27 28 29 29 20 20 20 20 20 20 20 20 20 20 20 20 20  | 25 |                        |         |                                       |                           | Rionrocess Engine   | erina -   |  |        |  |         |                          |
| Programming in C Fundamentals of Fundamentals of Process Dioprocess VL 2   |    |                        |         |                                       |                           |                     | .c.iiig - |  |        |  |         |                          |
| Programming in C VL 1 Mechanical Engineering Engineering and Material Engineering - Engineering -  | 27 | Programming in C       |         | Fundamentals of                       | Fundamentals of Process   | Bioprocess          | VL 2      | Bioprocess l   | JE 2   |  |         |                          |
|  | 28 | Programming in C       | VL 1    | Mechanical Engineering                | Engineering and Materia   | I Engineering -     |           | Engineering -  |        |  |         |                          |

|    | Programming in C PR 1                                 | (GES)                                       | Engineering   | Fundamentals  | Advanced |
|----|---|---|---|---|----------|
| 29 | Physics for Engineers<br>(GES)                        | Fundamentals of VL 2 Mechanical Engineering | Introduction into VL 2 Process Engineering/Bioprocess | Bioprocess HÜ 2<br>Engineering-<br>Fundamentals           |          |
|    | Physics for Engineers VL 2 Physics for Engineers UE 1 | Fundamentals of UE 2 Mechanical Engineering | Fundamentals of VL 2 material engineering             | Bioprocess PR 2<br>Engineering -<br>Fundamental Practical |          |
| 30 |   |   |   | Course  |          |
| 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.