## Course of Study Renewable Energies (Study Cohort w22)

Sample course plan C Master Renewable Energies (REMS) Dual study program

| Specia | isation bioenergy systems                                                                                                                                |    |        |                                                                             |       |   |                                                                  |    |   |                                    |
|--------|----------------------------------------------------------------------------------------------------------------------------------------------------------|----|--------|-----------------------------------------------------------------------------|-------|---|------------------------------------------------------------------|----|---|------------------------------------|
| 1      | Fluid Mechanics and Ocean Energy                                                                                                                         |    |        | Dimensioning and Assessment of Renewable Energy Systems (part 2)            | )     |   | Thermal Energy Systems                                           |    |   | Master thesis (dual study program) |
| 2      | Fluid Mechanics II                                                                                                                                       | VL |        | Heat Provision from Renewable Sources of Energy                             | SE 2  | 2 | Thermal Engergy Systems                                          |    | 3 |                                    |
| 3      | Energy from the Ocean                                                                                                                                    | VL | 2      | Use of Solar Energy                                                         |       | _ | Thermal Engergy Systems                                          | ΗÜ | 1 |                                    |
| 4      |                                                                                                                                                          |    |        |                                                                             | VL 2  | 2 |                                                                  |    |   |                                    |
|        |                                                                                                                                                          |    |        | Energy Meteorology                                                          | VL 1  | ı |                                                                  |    |   |                                    |
| 5      |                                                                                                                                                          |    |        |                                                                             | GÜ 1  |   |                                                                  |    |   |                                    |
| 6      |                                                                                                                                                          |    |        | Collector Technology                                                        | VL 2  | 2 |                                                                  |    |   |                                    |
| 7      | Electrical Power Systems I: Introduction to Electrical Power System                                                                                      | s  |        |                                                                             |       |   | Practical module 3 (dual study program, Master's degree)         |    |   |                                    |
| 8      | Electrical Power Systems I: Introduction to Electrical Power Systems                                                                                     | VL |        |                                                                             |       |   | Practical term 3                                                 |    | 0 |                                    |
| 9      | Electrical Power Systems I: Introduction to Electrical Power Systems                                                                                     | GÜ | 2      | System Aspects of Renewable Energies                                        |       |   |                                                                  |    |   |                                    |
| 10     |                                                                                                                                                          |    |        |                                                                             | VL 1  | ı |                                                                  |    |   |                                    |
|        |                                                                                                                                                          |    |        | Energy Trading                                                              | GÜ 1  | ı |                                                                  |    |   |                                    |
| 11     |                                                                                                                                                          |    |        | Fuel Cells, Batteries, and Gas Storage: New Materials for Energy Production | VL 2  | 2 |                                                                  |    |   |                                    |
| 12     |                                                                                                                                                          |    |        | and Storage<br>Deep Geothermal Energy                                       | VL 2  | , |                                                                  |    |   |                                    |
| 13     | Bioenergy                                                                                                                                                |    |        | beep beotherman Energy                                                      |       | - |                                                                  |    |   |                                    |
| 14     | Biofuels Process Technology                                                                                                                              | VL |        |                                                                             |       |   |                                                                  |    |   |                                    |
| 15     | Biofuels Process Technology<br>Thermal Biomass Utilization                                                                                               |    | 1<br>2 | Modelling and Technical Design of Bio Refinery Processes                    |       |   |                                                                  |    |   |                                    |
| 16     | World Market for Commodities from Agriculture and Forestry                                                                                               |    | 1      |                                                                             | РК 3  | 3 |                                                                  |    |   |                                    |
|        | Thermal Biomass Utilization                                                                                                                              |    | 1      | Biorefineries - Technical Design and Optimization                           | PBL 3 | 3 |                                                                  |    | _ |                                    |
| 17     |                                                                                                                                                          |    |        |                                                                             |       |   | Examples in Solid Process Engineering<br>Fluidization Technology | VL | 2 |                                    |
| 18     |                                                                                                                                                          |    |        |                                                                             |       |   | Technical Applications of Particle Technology                    |    | 2 |                                    |
| 19     | Energy Projects - Development and Assessment                                                                                                             |    |        |                                                                             |       |   | Practical Course Fluidization Technology                         | PR | 1 |                                    |
| 20     | Development of Renewable Energy Projects<br>Economics of an Energy Provision from Renewables                                                             |    | 2      |                                                                             |       |   | Exercises in Fluidization Technology                             | GÜ | 1 |                                    |
| 21     | Economics of an Energy Provision from Renewables<br>Economics of an Energy Provision from Renewables                                                     |    | 1      | Practical module 2 (dual study program, Master's degree)                    |       |   |                                                                  |    |   |                                    |
| 22     | Renewable Energy Projects in Emerged Markets                                                                                                             |    | 2      | Practical term 2                                                            | 0     | D |                                                                  |    |   |                                    |
| 23     |                                                                                                                                                          |    |        |                                                                             |       |   | Environmental protection management                              |    |   |                                    |
| 23     |                                                                                                                                                          |    |        |                                                                             |       |   | Air Pollution Abatement                                          | VL | 2 |                                    |
|        |                                                                                                                                                          |    |        |                                                                             |       |   | Health, Safety and Environmental Management                      | IV | 3 |                                    |
| 25     | Dimensioning and Assessment of Renewable Energy Systems (part<br>Electricity Generation from Renewable Sources of Energy                                 |    | 2      |                                                                             |       |   |                                                                  |    |   |                                    |
| 26     | Environmental Technology and Energy Economics                                                                                                            |    | 2      |                                                                             |       |   |                                                                  |    |   |                                    |
| 27     |                                                                                                                                                          |    |        |                                                                             |       |   |                                                                  |    |   |                                    |
| 28     |                                                                                                                                                          |    |        |                                                                             |       |   |                                                                  |    |   |                                    |
| 29     | Practical module 1 (dual study program, Master's degree)                                                                                                 |    |        |                                                                             |       |   |                                                                  |    |   |                                    |
| 30     | Practical term 1                                                                                                                                         |    | 0      |                                                                             |       |   |                                                                  |    |   |                                    |
| 31     |                                                                                                                                                          |    |        | Sustainable energy from wind and water                                      |       | _ |                                                                  |    |   |                                    |
|        |                                                                                                                                                          |    |        |                                                                             | VL 2  | , |                                                                  |    |   |                                    |
| 32     |                                                                                                                                                          |    |        |                                                                             | VL 2  | 2 |                                                                  |    |   |                                    |
| 33     |                                                                                                                                                          |    |        |                                                                             | VL 1  | 1 |                                                                  |    |   |                                    |
| 34     |                                                                                                                                                          |    |        | Hydro Power Use                                                             | VL 1  | 1 |                                                                  |    |   |                                    |
| 35     |                                                                                                                                                          |    |        |                                                                             |       |   |                                                                  |    |   |                                    |
| 36     |                                                                                                                                                          |    |        |                                                                             |       |   |                                                                  |    |   |                                    |
| 37     |                                                                                                                                                          |    |        | Bioprocess and Biosystems Engineering                                       |       |   |                                                                  |    |   |                                    |
| 38     |                                                                                                                                                          |    |        |                                                                             | VL 2  | 2 |                                                                  |    |   |                                    |
|        |                                                                                                                                                          |    |        |                                                                             | VL 2  |   |                                                                  |    |   |                                    |
| 39     |                                                                                                                                                          |    |        | Bioreactors and Biosystems Engineering                                      | PBL 1 | 1 |                                                                  |    |   |                                    |
| 40     |                                                                                                                                                          |    |        |                                                                             |       |   |                                                                  |    |   |                                    |
| 41     |                                                                                                                                                          |    |        |                                                                             |       |   |                                                                  |    |   |                                    |
|        | Business & Management (from catalogue) - 6LP                                                                                                             |    |        |                                                                             |       |   |                                                                  |    |   |                                    |
|        | Linking theory and practice (dual study program, Master's degree) (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. |    |        |                                                                             |       |   |                                                                  |    |   |                                    |

Focus Compulsory

alisation Compulsory

Core Qualification Elective Compulsory Specialisation Elective Compulsory Focus Elective Compulsory

Thesis Compulsory

Interdisciplinary complement