

First Statute on the Amendment of the Regulations for the Double Master's Degree Cooperation Agreement

between

**Mathematisch-Naturwissenschaftlichen Fakultät of the
University of Rostock, Germany**

and

**School of Chemical Engineering of the
Hanoi University of Science and Technology, Hanoi**

regarding

DOUBLE MASTER'S DEGREE

ARTICLE I - AMENDMENTS

The Double Master's Degree Cooperation Agreement of June 5, 2019 between the Hanoi University of Science and Technology (hereafter HUST) established in Hanoi, Dai Co Viet Road, Hanoi, Vietnam and University of Rostock (hereafter UR) located at Universitätsplatz 1, 18055 Rostock, Germany are amended as follows:

“ANNEX 2 - CURRICULUM AND CATALOGUE OF MODULES” shall be worded as follows:

“The structure of the double degree Program includes 4 semesters. In the first and second semester all students take 60 ECTS credits and/or 30 HUST credits in their home universities. In the third and fourth semester students visiting the partner universities and take courses for 60 ECTS credits and/or 30 HUST credits. In these semester students may be engaged in courses, research work and practice at the Host University. In the fourth semester all students prepare and defend master thesis under joint supervising.

The following catalogue defines the sets of modules visiting students typically can choose from. HUST and UR guarantee to accept the corresponding ECTS points /HUST credits achieved for modules from these lists. The catalogue is split into two parts: The first part contains pairs of modules from UR and HUST with equivalent content. The second part contains modules being offered exclusively from UR or HUST and can be selected independent of remaining choices.

Education process of the double degree Program is to be carried out based on the individual curriculum approved by both universities, in accordance with their rules. Individual curriculum is based on the standard curriculum (Annex 3), approved by both universities. Some courses of UR students with a research focus may be recognized as a research work.

The following tables translates the grading systems of UR and HUST for single modules.

Table 1. Grading Table for the recognition of HUST lecture grades at the University of Rostock (**HUST→UR**)

| Vietnamese names of the HUST grades (Master course) | UR (numerical grades) | German/English names of grades |
|--|-----------------------|--|
| | 1.0 | Ausgezeichnet(excellent) |
| A | 1.3 | Sehr gut (very good) |
| | 1.7 | Gut (good) |
| B | 2.0 | Gut (good) |
| | 2.3 | Gut (good) |
| | 2.7 | Befriedigend (satisfactory) |
| C | 3.0 | Befriedigend (satisfactory) |
| | 3.3 | Befriedigend (satisfactory) |
| | 3.7 | Ausreichend (sufficient) |
| D | 4.0 | Ausreichend (sufficient) |
| F | 5.0 | Ungenügend/Nicht bestanden (not sufficient/not passed) |

Table 2. Grading Table for the recognition of UR lecture grades at the HUST (UR→HUST):

| UR (numerical grades) | Vietnamese names of the HUST grades (Master course) | German/English names of grades |
|-----------------------|---|--|
| 1.0 | A | Ausgezeichnet(excellent) |
| 1.3 | A | Sehr gut (very good) |
| 1.7 | B | Gut (good) |
| 2.0 | B | Gut (good) |
| 2.3 | B | Gut (good) |
| 2.7 | C | Befriedigend (satisfactory) |
| 3.0 | C | Befriedigend (satisfactory) |
| 3.3 | C | Befriedigend (satisfactory) |
| 3.7 | D | Ausreichend (sufficient) |
| 4.0 | D | Ausreichend (sufficient) |
| 5.0 | F | Ungenügend/Nicht bestanden (not sufficient/not passed) |

HUST grades:

8.5-10: A – very good
 7.0-8.4 B – good
 5.5-6.9: C – satisfactory
 4.0-5.4: D– sufficient
 <4.0: F – not sufficient

Catalogue of equivalent modules

| University of Rostock | Modul No | ECTS credits | HUST University | Modul No | HUST credits |
|--|----------|--------------|---|------------------|--------------|
| Physikalische Chemie 6: Molekulare Spektroskopie - Experiment und Theorie / Physical Chemistry 6: Molecular Spectroscopy - Experiment and Theory | 2550690 | 9 | Advanced Physical Chemistry Courses: Advanced Spectrochemical Analysis Chemical Kinetics and Catalysis | CH6705 CH6031 | 2 2 |
| Analytische Chemie 3 und Technische Chemie 2: Instrumentelle Analytik 2 und Biotechnologie / Analytical Chemistry 3 and Industrial Chemistry 2: Instrumental Analytics and Biotechnology | 2550430 | 9 | Analytic Chemistry and Technical Chemistry Courses: Surface Chemistry Speciation Analysis in Analytical Chemistry | CH6021 CH6707 | 2 2 |
| Anorganische Chemie 6: Molekulare Funktion und Materialdesign / Inorganic Chemistry 6: Molecular Function and Materials Design | 2550460 | 9 | Advanced Inorganic Chemistry Courses: Advanced Inorganic Chemistry Synthesis of Materials | CH6051 CH6341 | 2 2 |
| Organische Chemie 5: Organische Moleküle - Synthese und Nutzung / Organic Chemistry 5: Organic Molecules - Synthesis and Application | 2550670 | 9 | Advanced Organic Chemistry Courses: Advanced Chemistry of Natural Products Organic Synthesis | CH6700 CH6271 | 2 2 |
| Methodenpraktikum Chemie / Method Practical Course Chemistry | 2550660 | 6 | Chemometric Methods of Environmental Analysis | CH6061 CH6071 | 2 2 |
| Literaturpraktikum: Beiträge und Trends der aktuellen chemischen Forschung / Literature Work: Contributions and Trends of Current Chemical Research | 2550610 | 6 | Literature survey: Trends in Chemistry/Research Seminar 1: Research Field Overview | CH6801 | 3 |
| Forschungspraktikum Chemie / Practical Research Training Chemistry | 2550550 | 18 | Research Praktika: Research Proposal Seminar 2: Initial Research Results | DX6000 CH6802 | 6 3 |
| Masterarbeit Chemie / Master Thesis Chemistry | 2550630 | 30 | Master thesis | CH6001/LV6001 | 15 |
| Wahlpflichtbereich Nachhaltige Chemie (insgesamt 12 ECTS siehe unten) Mandatory/Compulsory courses Sustainable Chemistry (total 12 ECTS, see below) | | 12 | Mandatory/ Compulsory courses Sustainable Chemistry - Total 8 HUST credits (4 lectures a 2 HUST credits, see below) | | 8 |
| Wahlbereich /Compulsory courses | | 12 | Philosophy | SS6013/SS6010 | 3 |
| | | | Compulsory Course | | 2 |
| | | Σ120 | | | Σ60 |

Wahlpflichtbereich Double-Degree Nachhaltige Chemie/Compulsory courses Sustainable Chemistry (English)

Total 12 ECTS or 8 HUST credits

| University of Rostock | Modul No | ECTS credits |
|--|-----------------|---------------------|
| Anorganische Chemie 8: Struktur und Bindung in der modernen Nichtmetall- und Metallchemie / Inorganic Chemistry 8: Structure and Bonding in Modern Non-metal and Metal Chemistry | 2550480 | 6 |
| Analytische Chemie 4: Ökologische Chemie / Analytical Chemistry 4: Environmental Chemistry | 2550440 | 6 |
| Einführung in die Nachhaltige Chemie / Introduction to Sustainable Chemistry | 2550520 | 3 |
| Elektrochemie 1 - Grundlagen und Anwendungen / Electrochemistry 1 - Fundamentals and Applications | 2550530 | 3 |
| Organische Chemie 6: Natur- und Wirkstoffe / Organic Chemistry 6: Natural Products and Pharmaceutically Active Ingredients | 2550680 | 6 |
| Technische Chemie 3: Chemische Umwelttechnologie / Technical Chemistry 3: Chemical Environmental Technology | 2550750 | 6 |
| Chemische Energiekonversion / Chemical Energy Conversion | 2550500 | 6 |
| | | |
| HUST University | Modul No | HUST credits |
| Introduction to Sustainable Chemistry | CH6504 | 2 |
| Physico-chemical Methods for Wastewater Treatment Processes | CH6241 | 2 |
| Catalytic reactions in new technology and environmental protection | CH6251 | 2 |
| Methods of Structural Analysis of Organic Compounds | CH6301 | 2 |