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Examination Regulations

for

Environment and Energy B.Sc.

Faculty of Communication and Environment
Rhine-Waal University of Applied Sciences

Dated 19 June 2013
(Official Notice 10/2013)

As amended by the third amending statutes from 7 June 2018
(Official Notice 26/2018)

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Section 1 Scope

These examination regulations apply to Environment and Energy B.Sc., offered in English by the Faculty of Communication and Environment of Rhine-Waal University of Applied Sciences, and are valid in conjunction with the General Examination Regulations for Undergraduate and Postgraduate Degree Programmes (“RPO”) of Rhine-Waal University of Applied Sciences. They govern the standard seven-semester mode of study (full-time); the nine-semester, dual-vocational mode of study (dual); and the nine-semester mode of study for working professionals (part-time).

Section 2 Academic objectives; purpose of examination; degree awarded

- (1) The final undergraduate assessment concludes this degree programme and qualifies graduates to continue their studies in a postgraduate degree programme. Academic aims and objectives are outlined in Section 3 RPO. A strong command of the English language is key to achieving success in this degree programme, as it provides the essential basis for this programme’s continuous goal of expanding and honing students’ technical language and communication skills.
- (2) The academic degree “Bachelor of Science”, abbreviated as “B.Sc.”, is awarded upon successful completion of the bachelor’s examination.

Section 3 Admission requirements

- (1) General admission requirements are defined in Section 4 RPO.
- (2) Applicants are ineligible for admission if they have irrevocably failed their final attempt at a mandatory examination in the same degree programme at a university within the jurisdiction of the Basic Law of the Federal Republic of Germany; this also applies to previous degree programmes sharing a significant overlap in content with this degree programme.
- (3) Acceptable proof of English proficiency is set forth in Section 4 (5a) RPO.
- (4) (Intentionally omitted)

Section 4 Basic internship

Proof of completion of a basic internship within the meaning of Section 4 (3) RPO is not required for this degree programme, as a sufficient portion of content provides ample opportunity for students to transfer their skills and knowledge to practice.

Section 5

Programme structure; volume of instruction hours; progression of studies

- (1) This degree programme has a total volume of instruction of 143 contact hours (SWS).
- (2) The modules of this degree programme comprise a total sum of 210 credits according to the ECTS framework defined RPO in Section 6 (5).
- (3) All modules and examinations are conducted in English. However, with approval of the Examination Board students in Environment and Energy may complete electives in German offered by other degree programmes at Rhine-Waal University of Applied Sciences.
- (4) On-the-job vocational training is an integrated part of the dual study variant for this degree programme and occurs concurrently over the first four semesters. Both the vocational training position and the company must share the same field as this degree programme. The faculty is responsible for judging the relevance of a proposed dual study arrangement. In the “dual” phase of study, the contents of the first two full-time semesters are instead taught over four semesters. During this phase, the dual study student will spend two weekdays at the University and three at the company where he or she is undergoing vocational training. The dual phase usually concludes before the start of the fifth semester with a comprehensive examination (in German) at the regional Chamber of Industry and Commerce.
- (5) In the part-time mode of study, working professionals can study on a part-time basis while continuing their career. Accordingly, part-time students may study according to the dual-vocational module progression for their first four semesters. This means the contents of the first two semesters for full-time students are taught over four semesters instead. During this period, part-time students attend two days of lectures at Rhine-Waal University of Applied Sciences and three days of practical training at their place of employment. Students are responsible for organising their remaining semesters after this period.
- (6) Additional information about the breakdown of this degree programme and about the type, form and scope of modules can be found in the attached study and examination plan. Additional information about learning outcomes, qualification aims, contents and forms of examination can be found in the corresponding module guide on the website of Rhine-Waal University of Applied Sciences.

Section 6

Type and scope of examinations

- (1) Within a module, individual pass/fail certificates (refer to Section 20 RPO) can be made into prerequisites for attending the final written examination for that module. This applies to modules involving both a pass/fail certificate and a graded examination.
- (2) The time allotted to students for a written examination is based on the credit value of the respective course and will not exceed 120 minutes. For combined examinations (Section 14 (3) RPO), the time allotted can be reduced accordingly.
- (3) An oral examination generally lasts at least 15, but no more than 30 minutes per student.

(4) The text portion of an assignment, term paper or project should not exceed 30 DIN A4 pages.

Section 7 Scope and form of the thesis

(1) The text portion of the thesis should generally be between 40 and 60 DIN A4 pages in length. The thesis may also be supplemented with other media as well, provided their use as additional documentation is appropriate and helpful within the context of the assigned task. In this case, the length of the text portion of the thesis may deviate from the aforementioned minimum requirement.

(2) The undergraduate thesis can also be admitted as group work if each student's individual contribution fulfils the requirements set forth in Section 23 (1) RPO and is clearly distinguishable (and thus assessable) thanks to clear and distinct delimitation by sections, page numbers or other criteria.

Section 8 Admission to the thesis and colloquium

(1) In addition to the thesis admission requirements defined under Section 24 RPO, students must have obtained 175 credits. The credit-bearing workshops in the seventh semester are explicitly excluded from this requirement and thus do not count towards the minimum credit requirement for admission to the thesis.

(2) In addition to the colloquium admission requirements defined under Section 27 (2) RPO, candidates must have obtained 207 CP.

Section 9 Credit values for the thesis and colloquium

(1) Twelve credits are awarded for passing the undergraduate thesis.

(2) Three credits are awarded for passing the colloquium.

Section 10 Awarding of the bachelor's degree

The bachelor's degree specified in Section 2 (2) is officially conferred upon issuing the bachelor's degree certificate defined in Section 30 (1) RPO.

Section 11

Entry into force / transitional provisions

(1) These examination regulations will enter into force on the day after the publication of the German-language original the Official Notices of Rhine-Waal University of Applied Sciences. They apply to students who first enrolled in Environment and Energy B.Sc. of the Faculty of Communication and Environment of Rhine-Waal University of Applied Sciences in or after winter semester 2018-2019.

(2) Students who enrolled in Environment and Energy B.A. before winter semester 2018-2019 may continue their studies according to the previous examination regulations from 19 June 2013 (Official Notices 20/2013), as amended on 11 April 2017 (Official Notice 11/2017), until no later than 28 February 2025. Students are permitted to complete newer modules in the elective catalogue regardless of the requirement to request a change of examination regulations set forth in subsection (3) below. The examination regulations from 19 June 2013 (Official Notice 20/2013), as amended on 11 April 2017 (Official Notice 11/2017), will expire on 1 March 2025.

(3) Students currently studying under the examination regulations from 19 June 2013 (Official Notice 20/2013), as amended on 11 April 2017 (Official Notice 12/2018), may submit a written request to the Examination Board to study instead under these new examination regulations. The Examination Board is responsible for all decisions on the recognition of credits for previously completed modules and examinations.

Note: These examination regulations entered into force on 25 July 2018.

Annex

Recommended study and examination plan for Environment and Energy B.Sc., full-time:

Code No (Kennnr.)	Module	CH (SWS)	Type (Veranstaltungsart)						Te (Prü)	CP	WS1	SS2	WS3	SS4	WS5	SS6	WS7
			L (V)	SL (SL)	S (S)	E (Ü)	PT (Pra)	Pro (Pro)									
EE_1.02	Fundamentals of Energy Management and Technology Grundlagen des Energiemanagements und der	5	3			2			E (P)	5	5						
EE_1.04	Mathematics: Analysis and Discrete Mathematics Mathematik: Analysis und diskrete Mathematik	4	2			2			E (P)	5	4						
EE_1.06	Introduction to Ecology and Environmental Sciences Einführung in die Ökologie und Umweltwissenschaften	5	3			2			E (P)	5	5						
EE_1.07	Fundamentals of Biology and Natural Cycles of Matter Grundlagen der Biologie und der natürlichen Stoffkreisläufe	5	3			2			E (P)	5	5						
EE_1.08	Physics: Mechanics, Electricity and Magnetism Physik: Mechanik, Elektrizität und Magnetismus	8	4			4			E (P)	10	8						
EE_2.01	General and Inorganic Chemistry Allgemeine und anorganische Chemie	5	2			1	2		E/C (P/T)	5		5					
EE_2.02	Evaluation of Ecosystems and Environmental Assessment Ökosystem- und Umweltbewertung	5	2				3		E/C (P/T)	5		5					
EE_2.03	Physics: Thermodynamics, Radiation and Heat Transfer Physik: Thermodynamik, Strahlung und Wärmeübertragung	4	2			2			E (P)	5		4					
EE_2.05	Linear Algebra and Graph Theory Lineare Algebra und Graphentheorie	4	2			2			E (P)	5		4					
EE_2.06	Fundamentals of Scientific Programming Grundlagen des wissenschaftlichen Programmierens	4	3			1			E (P)	5		4					
EE_3.03	Statistics and Data Processing Statistik und Datenverarbeitung	5	3			2			E (P)	5		5					
EE_3.01	Organic Chemistry and Analytical Chemistry Organische Chemie und analytische Chemie	5	2				3		E/C (P/T)	5			5				
EE_3.02	Energy Technology Energietechnik	4	2			2			E (P)	5			4				
EE_3.04	Fundamentals of Business Administration Grundlagen der Betriebswirtschaftslehre	4	2			2			E (P)	5			4				
EE_4.02	Project Management and Intercultural Competence Projektmanagement und interkulturelle Kompetenz	4	2			2			C (T)	5			4				
EE_3.06	Microbiology Mikrobiologie	4	2				2		E/C (P/T)	5			4				
EE_3.07	Fundamentals of Geodata Management Systems Grundlagen der Geoinformationssysteme	4	2			2			E (P)	5			4				
EE_4.01	Resource Management and Environmental Health Ressourcenmanagement und Umwelthygiene	6	4			2			E (P)	5				6			
EE_4.03	Applied Measurement and Control Angewandte Verfahren der Mess- und Regelungstechnik	4	2			2			E (P)	5				4			
EE_4.04	Legal Fundamentals Rechtliche Grundlagen	4	4						E (P)	5				4			
EE_3.05	Entrepreneurship Unternehmensgründung	4	3			1			E (P)	5				4			
EE_5.01	Remediation and Redevelopment Sanierung und Standortentwicklung	5	4			1			E (P)	5					5		
EE_5.02	Process Engineering Verfahrenstechnik	5	5						E (P)	5					5		
EE_5.03	Interdisciplinary Project Interdisziplinäres Projekt	6						6	E (P)	10					6		
	Elective courses * Wahlpflichtkurse *	16								20				8	8		
	Total weekly semester hours Gesamt-Semesterwochenstunden	129									27	27	25	26	24	30	30

EE_6.01 Internship or semester abroad (Praxis- oder Auslandssemester) (30 CP; TE: C (T))

EE_7.01 Workshop 1: Research Methods (Forschungsmethoden) (4 SW; 5 CP; type: S; TE: C (T)) EE_7.02 Workshop 2: Scientific Writing (Wissenschaftliches Schreiben) (4 SW; 5 CP; type: S; TE: C (T)) EE_7.03 Workshop 3: Advanced Seminar (Hauptseminar) (4 SW; 5 CP; type: S; TE: C (T)) EE_7.04 Bachelor's Thesis (Bachelorarbeit) (12 CP) and Colloquium (Kolloquium) (3 CP)

150 CP

129 CH (SWS)

12 CH (SWS)
60 CP

210 CP

Allocation	CH (SWS)	total	141	27	27	25	26	24	-	12
CP	total	210	210	30	30	30	30	30	30	30

Code No (Kennnr.)	Elective courses (Wahlpflichtkurse)	CH (SWS)	CP	Te (Prü)
EE_W.01	Advanced Simulation and Modelling Simulation und Modellierung	4	5	E (P)
EE_W.03	Innovative Solutions in Environment and Energy Innovative Lösungen in Umwelt- und Energietechnik	4	5	E (P)
EE_W.04	Advanced Environmental Analytical Chemistry Chemische Umweltanalytik	4	5	E (P)
EE_W.05	Electromobility Elektromobilität	4	5	E (P)
EE_W.06	Advanced Auditing and Certification Procedures Auditierungs- und Zertifizierungsprozesse für Fortgeschrittene	4	5	E (P)
EE_W.07	Environmental Monitoring Umweltmonitoring	4	5	E (P)
EE_W.08	Environmental Economics Umweltökonomie	4	5	E (P)
EE_W.09	Energy Economics Energieökonomie	4	5	E (P)

* As elective courses, a maximum of 6 CH / 6 CP can be chosen with the consent of the Examination Board from any degree programme at Rhine-Waal University of Applied Sciences.

* Im Wahlpflichtbereich können mit Zustimmung des Prüfungsausschusses maximal 6 SWS/ 6 CP aus dem gesamten Studienangebot der Hochschule Rhein-Waal belegt werden.

Abkürzungen / Abbreviations:

CH	Semesterwochenstunden, <i>credit hours per week</i>
V	Vorlesung, <i>lecture</i>
SL	seminaristischer Unterricht, <i>seminar-like lecture</i>
S	Seminar, <i>seminar</i>
Ü	Übung, <i>exercise</i>
Pra	Praktikum, <i>practical course</i>
Pro	Projekt, <i>project</i>
Ex	Art der Prüfung, <i>type of examination</i>
CP	Credit points (= ECTS points); (1 ECTS/30h workload)
WS	Wintersemester, <i>winter semester</i>
SS	Sommersemester, <i>summer semester</i>
P	Prüfung, <i>examination</i>
T	Testat, <i>certificate</i>
SWS	Semesterwochenstunden, <i>contact hours per week</i>

Code No (Kennnr.)	Elective courses (Wahlpflichtkurse)	CH (SWS)	CP	Te (Prü)
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EE_W.03	Innovative Solutions in Environment and Energy Innovative Lösungen in Umwelt- und Energietechnik	4	5	E (P)
EE_W.04	Advanced Environmental Analytical Chemistry Chemische Umweltanalytik	4	5	E (P)
EE_W.05	Electromobility Elektromobilität	4	5	E (P)
EE_W.06	Advanced Auditing and Certification Procedures Auditierungs- und Zertifizierungsprozesse für Fortgeschrittene	4	5	E (P)
EE_W.07	Environmental Monitoring Umweltmonitoring	4	5	E (P)
EE_W.08	Environmental Economics Umweltökonomie	4	5	E (P)
EE_W.09	Energy Economics Energieökonomie	4	5	E (P)

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