HOCHSCHULE RHEIN-WAAL
Rhine-Waal University of Applied Sciences

Examination Regulations

for

Environment and Energy, B.Sc.

Faculty of Communication and Environment

Rhine-Waal University of Applied Sciences

from 19 June 2013
(Official Notice 10/2013)

As amended by the fourth amending statutes from 8 August 2025
(Official Notice 19/2025)

Contents

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 Bachelor's and Master's Degree Programmes of Rhine-Waal University of Applied Sciences.("RPO") of Rhine-Waal University of Applied Sciences.

Section 2
Academic objectives; purpose of examination; degree awarded

(1) The bachelor's examination concludes this degree programme and entitles graduates to continue their studies in a master's degree programme. The overall aims and objectives for this degree programme are outlined in Section 3 RPO. A strong command of English is key to success in this degree programme, as it provides the essential basis for the programme's continuous objective of expanding and honing students' professional language skills.

(2) The academic degree "Bachelor of Science", abbreviated as "B.Sc.", is awarded for successfully completing 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 per Section 4 (3) RPO is not required, as this degree programme contains a sufficient amount of content specifically designed to impart practical skills and knowledge to students.

Section 5
Programme structure; volume of instruction hours; progression of studies

(1) The total volume of instruction for this degree programme is 141 contact hours per week (CH, or SWS in German).

(2) The modules of this degree programme comprise a total of 210 credits in accordance with the ECTS framework defined in Section 6 (5) RPO.

(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) Participation in curricular seminars, internships or practical labs is mandatory. These mandatory courses are marked with a pound sign (#) in the study and examination plan.

(5) Mandatory courses (see subsection 4) have an attendance requirement of 75%. If a student is unable to fulfil the attendance requirement due to a long period of absence for justified reasons (for example illness, pregnancy or nursing leave), the responsible instructor can decide, upon request, if and how the student can make up for the period of absence and still pass the course. Section 16 (4) RPO applies with regard to compensatory arrangements.

(6) Additional information about the breakdown of this degree programme and the type, form and scope of modules is available in the study and examination plan at the end of this document. 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 pages (DIN A4).

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 be supplemented with other media, 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 thesis can also be submitted 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) due to clear and distinct separation 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 earned 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 also have obtained at least 207 CP.

Section 9
Credit values for the thesis and colloquium

(1) Twelve credits are awarded for passing the bachelor's thesis.

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

Section 10
Awarding of the bachelor's degree

The academic degree specified in Section 2 (2) is officially conferred upon issuing of 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 as an Official Notice 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 summer semester 2026.

Students who enrolled in Environment and Energy, B.Sc. before summer semester 2026 may continue their studies according to the previous examination regulations from 19 June 2013 (Official Notice 20/2013), as amended by the third amending statutes from 7 June 2018 (Official Notice 11/2018), until no later than 31 August 2032. The examination regulations from 19 June 2013 (Official Notice 20/2013), as amended by the third amending statutes from 7 June 2018 (Official Notice 26/2018), will expire on 1 September 2032.

(3) Students currently studying according to the examination regulations from 19 June 2013 (Official Notices 20/2013), as amended by the third amending statutes from 7 June 2018 (Official Notices 11/2018), may request in writing to the Examination Board to switch to the examination regulations defined herein. The Examination Board is responsible for all credit recognition decisions for modules and examinations completed under previous examination regulations. Upon expiry of the examination regulations in the version of the third amending statutes from 7 June 2018, any students still studying under said examination regulations are considered to have switched to the present examination regulations automatically.

(4) Elective modules set forth in the examination regulations can be attended by all students of Environment and Energy, B.Sc. A written request per subsection (3) is not required.

Note: These examination regulations entered into force in their present version on 29 October 2025.

Annex

Recommended study and examination plan for Environment and Energy, B.Sc.

Curriculum Environment and Energy, BSc PO-Version-2025

Code No (Kennnr.)	Module	CH (SWS)	Type (Veranstaltungsart) L (V)	SL (SL)	S (S)	Ex (Ü)	PT (Pra)	Pro (Pro)	Te (Prü)	CP	WS1	SS2	WS3	SS4	WS5	SS6	WS7
8111	Fundamentals of Energy Management and Technology Grundlagen des Energiemanagements und der Energietechnik	5	3			2			E (P)	5	5					8161 Internship or semester abroad (Praxis- oder Auslandsstudiensemester (30 CP; TE: C (T))	8171 Workshop 1: Research Methods (Forschungsmethoden) (4 SW; 5 CP; type: S; TE: C (T)) 8172 Workshop 2: Scientific Writing (Wissenschaftliches Schreiben) (4 SW; 5 CP; type: S; TE: C (T)) 8173 Workshop 3: Advanced Seminar (Hauptseminar) (4 SW; 5 CP; type: S; TE: C (T)) 8101 Bachelor Thesis (Bachelorarbeit) (12 CP) and 8102 Colloquium (Kolloquium) (3 CP)
8112	Mathematics: Analysis and Discrete Mathematics Mathematik: Analysis und diskrete Mathematik	4	2			2			E (P)	5	4						
8113	Introduction to Ecology and Environmental Sciences Einführung in die Ökologie und Umweltwissenschaften	5	3			2			E (P)	5	5						
8114	Fundamentals of Biology and Natural Cycles of Matter Grundlagen der Biologie und der natürlichen Stoffkreisläufe	5	3			2			E (P)	5	5						
8116	Physics: Mechanics Physik: Mechanik	4	2			2			E (P) C (T)	5	4						
8125	Fundamentals of Scientific Programming Grundlagen des wissenschaftlichen Programmierens	4	3			1			E (P)	5	4						
8121	General and Inorganic Chemistry # Allgemeine und anorganische Chemie #	5	2			1	2		E (P) C (T)	5		5					
8122	Evaluation of Ecosystems and Environmental Assessment # Ökosystem- und Umweltbewertung #	5	2				3		E (P) C (T)	5		5					
8123	Physics: Thermodynamics, Radiation and Heat Transfer Physik: Thermodynamik, Strahlung und Wärmeübertragung	4	2			2			E (P)	5		4					
8124	Linear Algebra and Graph Theory Lineare Algebra und Grafentheorie	4	2			2			E (P)	5		4					
8126	Statistics and Data Processing Statistik und Datenverarbeitung	5	3			2			E (P)	5		5					
8127	Electrical Engineering Elektrotechnik	4	2			2			E (P)	5		4					
8131	Organic Chemistry and Analytical Chemistry # Organische Chemie und analytische Chemie #	5	2				3		E (P) C (T)	5			5				
8132	Energy Technology Energietechnik	4	2			2			E (P)	5			4				
8133	Fundamentals of Business Administration Grundlagen der Betriebswirtschaftslehre	4	2			2			E (P)	5			4				
8134	Project Management and Intercultural Competence # Projektmanagement und interkulturelle Kompetenz #	4		4					C (T)	5			4				
8135	Microbiology # Mikrobiologie #	4	2				2		E (P) C (T)	5			4				
8136	Fundamentals of Geodata Management Systems Grundlagen der Geoinformationssysteme	4	2			2			E (P)	5			4				
8141	Resource Management and Environmental Health Ressourcenmanagement und Umwelthygiene	6	4			2			E (P)	5				6			
8142	Applied Measurement and Control Angewandte Verfahren der Mess- und Regelungstechnik	4	2			2			E (P)	5				4			
8143	Legal Fundamentals Rechtliche Grundlagen	4	4						E (P)	5				4			
8144	Entrepreneurship # Unternehmensgründung #	4	3			1			E (P)	5				4			
8151	Remediation and Redevelopment Sanierung und Standortentwicklung	5	4			1			E (P)	5					5		
8152	Process Engineering Verfahrenstechnik	5		4		1			E (P)	5					5		
8009	Interdisciplinary Project Interdisziplinäres Projekt	6						6	E (P)	10					6		
	Elective courses * Wahlpflichtkurse *	16								20				8	8	30	30
	Total weekly semester hours Gesamt-Semesterwochenstunden	129									27	27	25	26	24		

12 CH (SWS)
129 CH (SWS) 60 CP
150 CP
210 CP

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

Code No (Kennnr.)	Elective Courses (Wahlpflichtkurse)	CH (SWS)	L (V)	SL (SL)	S (S)	Ex (Ü)	PT (Pra)	Pro (Pro)	Te (Prü)	CP
8175	Advanced Simulation and Modelling Simulation und Modellierung	4		4					E (P)	5
8185	Advanced Environmental analytical chemistry # Chemische Umweltanalytik #	4	2				2		E (P) C (T)	5
8186	Advanced auditing and certification procedures # Auditierungs- u. Zertifizierungsprozesse f. Fortgeschrittene #	4	2			2			E (P) C (T)	5
8187	Environmental Economics Umweltökonomie	4	2				2		E (P) C (T)	5
8183	Innovative and Sustainable Solutions in Environment Innovative und nachhaltige Lösungen in Umwelttechnik	4		4					E (P)	5
8188	Environmental Monitoring # Umweltmonitoring #	4		4					E (P) C (T)	5
8189	Energy Economics Energieökonomie	4		4					E (P) C (T)	5
8184	Innovative and Sustainable Solutions in Energy Innovative und nachhaltige Lösungen in Energietechnik	4		4					E (P)	5

Participation in the seminar classes, exercises, practical courses or practical exercises listed in the curriculum is compulsory. If a certificate is foreseen in the curriculum certifying successful participation it is a prerequisite for admission to the examination.
Die Teilnahme an den mit # markierten seminaristischen Unterrichtseinheiten, Übungen, Praktika oder praktischen Übungen ist verpflichtend. Wenn ein Testat im Curriculum ausgewiesen wird, das eine erfolgreiche Teilnahme bescheinigt, ist dieses Testat Voraussetzung für die Teilnahme an der Prüfung.
* As elective courses, a maximum of 6 CH/ 6 CP can be chosen with the consent of the examination committee from any study course at the 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.

Abbreviations:

C (T)	Certificate (Testat)
CH (SWS)	credit hours per week (Semesterwochenstunden)
CP	credit points (= ECTS-points); (1ECTS/30h workload)
E (P)	Examination (Prüfung)
Ex (Ü)	Exercise (Übung)
L (V)	Lecture (Vorlesung)
Pro	Project (project)
PT (Pra)	Practical course (Praktikum)
S	Seminar
SL (SU)	Seminar-like lecture (seminaristischer Unterricht)
SS	Summer term (Sommersemester)
TE (Prü)	Type of examination (Art der Prüfung)
WS	Winter term (Wintersemester)