The following document is a translation from German and serves information purposes only.
The legally binding document is the German original.

Non-official final document without marked changes: Study and Examination Regulations issued by the Faculty of Energy and Life Science for the master's degree programme Wind Energy Engineering at Flensburg University of Applied Sciences; this version includes the 1st amended regulations dated 23 December 2022 (university bulletin MBWFK Schl.-H., page 7), the 2nd amended regulations dated 20 March 2024 (university bulletin MBWFK Schl.-H., page 23) and the 3rd amended regulations (not yet published in the university bulletin).
(Last updated: 17 July 2024)

Final document without changes: Study and Examination Regulations (Statutes) issued by the Faculty for Energy and Life Science for the master's degree programme Wind Energy Engineering at Flensburg University of Applied Sciences (FUAS) Version: 17 June 2021

On the basis of § 52 para. 1 sentence 1 of the Hochschulgesetz (HSG, Higher Education Act) in the version of the notice dated 5 February 2016 (GVOBl. Schl.-H. 2007, page 39), last updated by article 1 of that law as of 13 December 2020 (GVOBl. Schl.-H. 2021 page 2) and following the resolution made by the Faculty Board of the Faculty of Mechanical Engineering, Process Engineering and Maritime Technologies on 12 May 2021 and the resolution made by the Faculty Board of the Faculty of Energy and Biotechnology on 12 May 2021, the approval of the Senate of FUAS on 16 June 2021 and the permission granted by the President's Office of FUAS on 17 June 2021 the following statutes are issued.

§ 1
General information

These Study and Examination Regulations refer to the provisions made for all faculties of FUAS as defined in the Prüfungsverfahrensordnung (PVO, Principles of Assessment) of FUAS.
This degree programme is a joint programme offered in cooperation with Kiel University of Applied Sciences.

§ 2
Objective of studies

The objectives of studies in the Wind Energy Engineering master's degree programme are:

(1) Enabling students to identify and analyse problems related to the subject of wind engineering, to develop individual solutions that are both academically and technically sound and to successfully turn these solutions into marketable products and services.

(2) The acquisition of in-depth theoretical and active hands-on knowledge and the ability to apply these to solve complex research problems.

(3) The development of general skills in methodology and teamwork.

(4) The ability to apply academic research and writing techniques and work on innovative fields of research independently.

§ 3
Completion of studies

(1) On the basis of successfully completing the final examinations in the Wind Energy Engineering master's degree programme, the following academic degree will be awarded: Master of Science (M.Sc.).

(2) The master's degree is a postgraduate degree and formally entitles its bearer to embark on a doctorate.

§ 4
Admission requirements

(1) The President's Office grants admission to the master's degree programme based on a recommendation made by the Coordinator of the degree programme.

(2) Students who have successfully completed a bachelor's degree or German Diplom programme in mechanical engineering or energy engineering may be admitted to the master's degree programme.

(3) Applicants with a degree in a related subject area may be admitted to the master's degree programme under the condition that they take specific modules. These specific modules are to be defined by the admission committee in accordance with the procedure described in the annex to these regulations. Proof of successful attendance of these additional modules is a prerequisite for the registration of the master's thesis.

(4) Apart from the prerequisites defined in paragraphs 1 to 3, the following prerequisites need to be fulfilled to gain admission to the degree programme:

1. a final grade of at least *GUT* [GOOD] awarded for the bachelor's degree or
2. a minimum of two favourable letters of reference from professors of the university/universities previously attended or
3. a confirmation of aptitude by the admission committee.

(5) Applicants have to provide evidence of a satisfactory level of English language skills. The evidence can be provided as follows:

1. English being the applicant's native language or
2. by means of a grade of 10 points (German grading system) in English on a school leaving certificate (English must have been attended for at least 4 semesters/2 school years) issued by a secondary school granting admission to higher education [German Fachhochschulzugangsberechtigung] or
3. if the applicant holds a degree from a degree programme taught entirely in English (certified by the university in question) or
4. by means of a Cambridge First Certificate (minimum grade C) or
5. by means of a telc-B2 certificate or a UNIcert II certificate or
6. by means of a TOEFL test with a score of at least 72 (iBT) or an IELTS result of 5.5 (Overall Band Score) or a Pearson PTE Academic result of at least 59 or
7. By having spent a minimum of five months in an English-speaking country or
8. by completing English language or English-taught modules worth a minimum of 10 CP at university level.

§ 5
Standard duration of studies, credits

(1) The standard duration of studies for this degree programme is four semesters including the master's thesis.

(2) A total of 30 Credit Points (CP) is to be acquired each semester with one CP equalling a workload of 30 hours.

(3) A total of 120 Credit Points has to be acquired.

(4) Applicants receiving their admission to enrol after having completed one of the bachelor's or Diplom degree programmes mentioned under §4 paragraphs 2 and 3 will immediately be registered for the 2nd semester of the programme. The standard duration of studies for these students is three semesters if their bachelor's or Diplom degree programme was comprised of 210 credit points. The master's degree programme will then be made up of 90 credit points.

§ 6
Modules and assessment

(1) The module and assessment plan in form of a table is annex to these Statutes. This annex is an integral part of these Statutes.

(2) Whether acquired grades may be transferred and whether they will be recognised is stipulated by §14, paragraph 6 of the Prüfungsverfahrensordnung (PVO, Principles of Assessment). The annexed table defines in which way credit points are assigned to individual modules.

§ 7
Examination language

(1) Classes and examinations in the master's degree programme are to be held in English. If all students participating in a module agree, classes may be held in German.

(2) Teaching materials, examination materials and examinations must be produced in English.

(3) Group work (presentations, reports) is to be delivered in English. If all members of a group file an application accordingly, group work may be delivered in German.

(4) If an application is filed accordingly, the master's thesis may be written in German. If the application is accepted, the colloquium may also be held in German.

§ 8
Thesis

(1) The thesis is to be written during the 4th semester of the programme.

(2) Students can register for the final thesis if they are lacking no more than 15 CP from other semesters than the fourth. Semester of the programme

(3) The thesis is to be produced in a time period of five months.

(4) The topic of the thesis may only be withdrawn within a period of four weeks after it has been allocated.

(5) The time period in which the thesis has to be finished may only be extended by a maximum of four weeks. An application for extension has to be filed with the Examination Board not later than 14 days prior to the original deadline.

§ 9
Colloquium

(1) A colloquium is a mandatory part of the Wind Energy Engineering master's degree programme.

(2) The colloquium is scheduled to take 60 minutes per candidate.

§ 10
Composition of the final grade, certificate

The final grade is derived from the weighted individual grades resulting from the examinations and the grade awarded for the master's thesis (the grade for the written thesis counting 70% and the grade for the

colloquium counting 30%). The percentage to which a module is weighted into the final grade is determined on the basis of credit points: The credit points of a module are divided by the total credit points of all modules relevant to the final grade.

§ 11
Coming into effect, provisions for the transitional period

(1) These Statutes will come into effect on the day after their publication.

(2) These Study and Examination Regulations are effective for all students enrolling in the Wind Energy Engineering master's degree programme at FUAS starting from the winter semester 2020/21. The first statutes to amend the Study and Examination Regulations, dated 19 June 2020, (MBWK: No. 02/2020, page 45 on 14 July 2020) ceases to be in force.

(3) The third amended version of the Study and Examination Regulations dated 17 June 2021 will come into effect on the day after its publication and be effective for all students enrolling in the Wind Energy Engineering master's degree programme at FUAS starting from the winter semester 2024/25.

(4) Classes and modules offered for students who enrolled in the Wind Energy Engineering master's degree programme before the winter semester 2024/25 in accordance with the Study and Examination Regulations dated 17 June 2021, including the second amended version, will be discontinued per semester. This does not include assessment and examinations for comparable classes. These students have the opportunity to change their enrolment and study in accordance with the third amended Study and Examination Regulations dated 17 July 2024. Examinations and coursework completed successfully already will be acknowledged.

(5) When a class has been discontinued the assessment and examinations linked to it will be offered in the examination periods as defined by §6 para. 3 of the Principles of Assessment [Prüfungsverfahrensordnung, PVO] as well as at the end of the following three semesters. The last assessment and examinations for discontinued classes will be offered in the examination period winter semester 2026/27-II.

(6) Examinations can only be recognised in accordance with the Study and Examination Regulations of 17 June 2021, including the second amended version dated 24 May 2024, until the end of the exam period winter semester 2026/27-II. The master's thesis and the colloquium connected to it must be completed by 29 February 2028.

(7) The second statutes to amend the Study and Examination Regulations dated 20 March 2024 will ceases to be in force on 29 February 2028.

Flensburg, 17 June 2021

Prof. Dr. Antje Labes
Faculty for Energy and Biotechnology

Flensburg University of Applied Sciences
- The Dean -

Prof. Sander Limant
Faculty for Mechanical Engineering, Process Engineering and Maritime Technologies

- The Dean -

Annex 1 to §6, para. 1

Modules and assessment plan for the Wind Energy Engineering master's degree programme

The following abbreviations are used in the table below:

Teaching method	
L	Lecture
Sem	Seminar
T	Tutorial
Lab	Laboratory
P	Project

Type of assessment	
CW	Coursework
Ex	Examination

Contact hours and credits	
hpw	hours per week
CP	Credit Points

Form of assessment	
WE (n)	Written exam (n hours)
OE	Oral exam
OA	Other form of assessment

Other forms of assessment are

Pres	Presentation
WR	Written report
HW	Homework

Where a comma is used in defining the form of assessment, the comma (,) shall be read as an "or".

1st semester of the programme (winter semester)					
Module				**Assessment**	
Module name	**Teaching method**	**hpw**	**CP**	**Teaching method**	**Form (hours if applicable)**
Advanced engineering mathematics	L/T	4	5	Ex	WE(2), OE
Global wind industry and turbine technology	L/T/Lab	4	5	Ex	WE(2), OE
Energy economics	L/T	4	5	Ex	OA (WR and Pres)
Scientific and technical writing	L/P	4	5	Ex	OA (WR)
Elective course Group a	see below	4	5	Ex	see below
Elective course Group b	see below	4	5	Ex	see below
All modules of the 1st semester of the programme		**24**	**30**	**6 EX**	

Please note:
The Coordinator of the degree programme reserves the right to determine which of the Group A modules students may have to take: As a general rule, students with a degree in the field of Mechanical Engineering or Civil Engineering must complete the module "Electrical engineering basics". Students with a degree in Electrical Engineering must complete the module "Mechanical engineering basics". Students with a degree from all other fields can complete modules from Group a as a module from Group b.

The elective courses offered for the 1st semester of the programme (winter semester) are:					
Module				**Assessment**	
Group a:	**Teaching method**	**hpw**	**CP**	**Teaching method**	**Form (hours if applicable)**
Mechanical engineering basics	L/T	4	5	Ex	WE(2), OE
Electrical engineering basics	L/T	4	5	Ex	WE(2), OE
Group b:	**Teaching method**	**hpw**	**CP**	**Teaching method**	**Form (hours if applicable)**
German for foreign students	L/T	4	5	Ex	OE, WE(1.5)
English for engineers	L/T	4	5	Ex	WE(2), OE
Wind energy challenge project	P	4	5	Ex	OA (WR)
Green entrepreneurship	L/T	4	5	Ex	OA (WR)

Please note:
The list of modules offered will be updated each semester and will be posted on the notice board of the Dean's Office before the end of each teaching period for the following teaching period.

2nd Semester of the programme (summer semester)					
Module				**Assessment**	
Module name	**Teaching method**	**hpw**	**CP**	**Teaching method**	**Form (hours if applicable)**
Wind turbine aerodynamics	L	4	5	Ex	WE(2), OE
Certification, load assumptions and simulations	L/T	4	5	Ex	WE(2), OE
Control and automation of wind power plants	L/T/P	4	5	Ex	WE(2), OE
Tower and rotor structures	L/T	4	5	Ex	WE(2), OE
Mechanical drive train	L/T	4	5	Ex	(WE(1.5), OE) and OA (HW and Pres)
Electrical engineering for wind turbines	L/T	4	5	Ex	WE(2), OE
All modules of the 2nd semester of the programme		**24**	**30**	**6 EX**	

3rd semester of the programme (winter semester)					
Module				**Assessment**	
Module name	**Teaching method**	**hpw**	**CP**	**Teaching method**	**Form (hours if applicable)**
Project: development of a wind turbine	L/P	7[1)]	10	Ex	OA (Pres and WR)[2)]
Elective course	see below	4	5	see below	see below
Elective course	see below	4	5	see below	see below
Focus	see below	8	10	see below	see below
All modules of the 3rd semester of the programme		**23**	**30**	**5 EX**	

[1)] 4 hpw lecture (joint project discussion), 3 hpw project

[2)] Students work on a set task in teams of three to five. They document their work in a standardised manner.

Focus[3)]	Module				Assessment	
	Module name	**Teaching method**	**hpw**	**CP**	**Teaching method**	**Form (hours if applicable)**
Mechanical engineering	Machinery components	L/Sem	4	5	Ex	WE(2), OE
	Finite elements (FE) & fatigue analysis	L/T	4	5	Ex	OA (WR and HW) or written assessment
Electrical engineering	Electrical machines, power electronics, control	L/T	4	5	Ex	WE(2), OE
	Grid integration	L	4	5	Ex	WE(2), OE
Structural engineering	Structures – rotor blades and civil engineering	L/T	4	5	Ex	WE(2), OE
	Finite elements (FE) & fatigue analysis	L/T	4	5	Ex	OA (WR and HW) or written assessment
Project development	Advanced wind farm planning	L/Lab	4	5	Ex	OA (WR)
	Wind farm project development	L/T	4	5	Ex	OA (WR and Pres)

[3)] Students are required to choose one of the four majors mentioned above (focus) in their 3rd semester.

The elective courses offered for the 3rd semester of the programme (winter semester) are:					
Module				**Assessment**	
Module name	**Teaching method**	**hpw**	**CP**	**Teaching method**	**Form (hours if applicable)**
Wind energy planning and applied geoinformatics	L/T	4	5	Ex	OA (WR)
Turbine measurements	L/T	4	5	Ex	WE(2), OE
Offshore wind energy: operation and maintenance	L/T	4	5	Ex	OE
Experimental and computational fluid dynamics	L/Lab/T	4	5	Ex	OE
Modelling & simulation of wind turbines	L/Lab	4	5	Ex	WE(2), OE
Controller design for wind turbines and wind farms	L/T	4	5	Ex	OE
Wind energy challenge project	P	4	5	Ex	OA (WR)
Green entrepreneurship	L/T	4	5	Ex	OA (WR)

Please note:
The list of modules offered will be updated each semester and will be posted on the notice board of the Dean's Office before the end of each teaching period for the following teaching period.

4th semester of the programme					
Module			**Assessment**		
Description	**Teaching method**	**CP**	**Teaching method**	**Form (hours if applicable)**	**Pre-requisite**
Master's thesis	Thesis and colloquium	30	Ex	Final thesis (5 months) & colloquium (60 minutes)	see §7, para. 2
All modules of the 4th semester of the programme		**30**	**1 EX**		

ANNEX (not a part of these Statutes)

Specifications of entry and admission requirements

A.1:
Similar degree programmes as mentioned in §3, paragraph 3 are engineering programmes such as

- Electrical Engineering
- Marine Engineering
- Civil Engineering
- Aerospace Engineering, and
- Offshore Technology

A.2:
Similar degree programmes as mentioned in §3, paragraph 3 must include modules covering content and an amount of credit points as specified below:

Basics of mathematics and natural sciences

- Mathematics 10 CP
- Physics 5 CP

Basics of engineering sciences

- Fluid Mechanics 5 CP
- Mechanics/Statics 5CP
- Electrical Engineering 5 CP

If applicants lack parts of the basics named above in the specified amount of credits, the respective modules will become prerequisites in accordance with §3, para. 3. If an applicant needs to make up more than 20 Credit Points from these basics, they are not considered eligible for admission.

A.3
The modules assigned by the admission committee must be completed in accordance with the Study and Examination Regulations of the degree programme that they are part of. There is no guarantee of or entitlement to the assigned modules being offered each semester.

A.4
In case of a restricted admission, admission to a degree programme is regulated by the Satzung der Hochschule Flensburg über das hochschuleigene Auswahlverfahren in den zulassungsbeschränkten Bachelor- und Masterstudiengängen [Statutes of Flensburg University of Applied Sciences on the university's selection procedure for bachelor's and master's degree programmes with restricted admission] in its most recent and valid version respectively.