This translation isfor informational purposes. Only the German version of this text is legally valid.

Degree Program and Examination Regulations (Statutes) of Europa-Universität Flensburg for the Sustainable Energy Degree Program Leading to the Master of Engineering (PStO M.Eng. Sustainable Energy 2025)

January 15, 2025

Announcement in NBl. HS MBWFK Schl.-H., p. 5
Date of announcement on the EUF website: January 15, 2025

Based on Section 52 (1) sentence 1, 10 of the Higher Education Act (HSG) in the version published on February 5, 2016 (GVOBl. Schl.-H., p. 39), last amended by Article 1 of the Act of February 3, 2022 (GVOBl. Schl.-H., p. 102), the following statutes are issued following a resolution passed by the Convention of Faculty III on December 4. The approval of the Executive Board of Europa-Universität Flensburg was granted on January 7, 2025.

Contents

Section 1
General

§ 1 Scope of the Degree Program and Examination Regulations

(1) These Examination and Study Regulations (PStO) contain the objectives and specific regulations of the Sustainable Energy degree program leading to a Master of Engineering degree in addition to the general regulations of the Framework Examination Regulations of Europa-Universität Flensburg (RaPO).

(2) Europa-Universität Flensburg cooperates with the Flensburg University of Applied Sciences in order to offer this degree program in accordance with section 49 (9) sentence 3 of the Higher Education Act.

§ 2 Admission and admission requirements

(1) The following prerequisites apply for admission to the Sustainable Energy degree program with a Master of Engineering degree.

1. For the “Transition” specialization, applicants must hold

   a) A degree from a bachelor's program of at least seven semesters in engineering, industrial engineering, or sustainability sciences with a focus on energy-related topics, comprising at least 210 credit points (CP), and

   b) A subject-specific stay abroad in the form of studies, an internship or a comparable stay, amounting to at least 20 credit points, or four months with a predominantly economic, engineering or sustainability-related focus.

2. For the specialization in Development, applicants must hold a degree from a bachelor's program in engineering or industrial engineering comprising at least seven semesters and 210 credit points (CP) and must demonstrate particular aptitude by providing proof of at least two years of professional experience as an engineer in an energy-related field, a written statement of motivation, and participation in an interview.

3. For the specialization in Engineering, applicants must hold a degree from a bachelor's program of at least seven semesters in engineering or industrial engineering with a focus on energy-related topics, comprising at least 210 credit points (CP), and

4. For all specializations, applicants must provide proof of at least good English language skills at level B2 of the Common European Framework of Reference for Languages, demonstrated either through their higher education entrance qualification or recognized international tests.

(2) Applicants who are in the undergraduate degree program and who

1. have acquired less than the required 210 CP according to paragraph 1 numbers 1 and 3, but at least 180 CP, or

2. have not yet acquired a maximum of 25 CP in the field of economics and methodology in accordance with paragraph 1 number 2,

can be admitted to the degree program on condition that they complete additional modules equivalent to the missing credit points. The specification of which additional modules are to be completed

are determined by the admissions committee formed in accordance with § 6 of the university admission regulations. In the case of the specialization in Development, corresponding additional modules amounting to 25 CP are offered consecutively over the course of one semester. Further details are regulated in the annex to this PStO; the annex is part of these statutes. Proof of passing the module examinations of these additional modules is a prerequisite for admission to the module examination TH: Master's Thesis (Prerequisites).

(3) If the admission requirement for the Transition specialization in accordance with paragraph 1, number 1, letter b) has not yet been fulfilled at the start of the degree program, it can be made up until registration for the master's thesis. The responsible Examination Committee shall decide whether or not recognition is granted. The Examination Committee may grant an exemption from the international experience requirement upon a justified written application. Serious mobility restrictions, such as caring for children and close relatives, are reasons to grant an exemption. An application for exemption must be submitted in writing to the Examination Committee. The committee shall review the application and inform the applicant of its decision in writing.

(4) The evidence required in paragraph 1 must be submitted in digital form by the application deadline, as well as the original or an officially certified copy by the start of studies. The Admissions Committee shall decide whether or not to recognize the equivalence of a certificate.

(5) If there is an admission restriction for the degree program, applicants shall be selected in accordance with the provisions of the Higher Education Admission Act and the Higher Education Admission Ordinance of the State of Schleswig-Holstein. The university selection procedure is regulated by Europa-Universität Flensburg’s university selection statutes. Decisions during the university selection procedure are made by the Admissions Committee.

§ 3 Objectives of the degree program, purpose of the examination, master's degree

(1) The master's degree in Sustainable Energy offers a choice of focus on either economic engineering or engineering science, as well as either an interdisciplinary and transdisciplinary focus. The course combines technology, economics, sustainability and justice factors related to the transformation of sustainable energy systems and teaches students appropriate solutions.

(2) Students acquire acdemic and methodological skills for developing technical, economic, political and social responses to complex environmental, climate and sustainability challenges. Upon successful completion of the degree program, they will be able to

1. understand energy industry problem constellations and social change processes and relate them to each other, as well as help shape transformation processes for sustainable energy systems,
2. recognize concrete individual and societal scope for action in order to be able to contribute to the energy system transformation in their future fields of work in science, politics and political consulting, NGOs, administration and companies,
3. apply theoretical-analytical skills to use cases and problems of a complex nature,

4. communicate empathically as individuals, in groups and in inter- and transdisciplinary environments and to cooperate creatively and with an open mind towards new developments,
5. plan and organize an energy industry project, be it in science, business or civil society, and critically evaluate their own and third-party projects and
6. write academic papers and reports professionally, formulate complex problems in a generally understandable way, and present and communicate them in various formats; this also includes the ability to apply, weigh up and reflect on scientific methods.

(3) Upon successful completion of the master's degree program, Europa-Universität Flensburg shall awards the academic degree Master of Engineering (M.Eng.).

§ 4 Standard period of study, structure of the degree program

(1) The standard period of study to complete the master's degree is three semesters. 90 CP are required for successful completion.

(2) The master's degree program consists of modules that can include practical study phases.

(3) The modules comprise 5 to 30 CP, corresponding to 150 to 900 hours of work. Modules with at least 10 CP can extend over two semesters. The scope of the master's thesis is regulated in § 6 paragraph 7 in conjunction with § 12 of these Degree Program and Examination Regulations.

§ 5 Organization of the degree program

(1) The course comprises a total of 90 credit points. At the beginning of their studies, students enroll in one of the following three specializations:

1. Transition
2. Development
3. Engineering

(2) The industrial engineering specialization “Transition” addresses the analysis and solution of technical and economic as well as political and social problems and challenges of sustainable energy systems. The consideration of both national and international factors reflects the holistic approach.

(3) The industrial engineering specialization “Development” addresses energy technologies and energy management in the context of equality, sustainability and fairness in countries of the global South and is primarily aimed at international students and students with a focus on development cooperation.

(4) The engineering specialization “Engineering” addresses the technical aspects of various technologies, their interplay, and how they function in the context of sustainable energy systems.

(5) The course consists of two core modules common to all specializations:
"Analysis and Complexity of Energy Systems (ACES)" and "Sustainable and Just Energy

System Solutions" (SEnSe) consisting of 15 CP each, specialization-specific required modules and required elective modules of 30 CP per specialization, and the master's thesis of 30 CP.

(6) Modules are offered either in the fall or spring semester, and do not build directly on each other. This means that the order of the semesters can also be swapped and adapted, depending on whether the course starts in the fall or spring. Paragraph 7 shows a course of study that is recommended for students who start in the spring semester.

(6) The following course of study is recommended: Transition specialization:

<table>
<tr><td rowspan="2">1st sem.
(early year)</td><td rowspan="2">ACES:
Analysis and Complexity of Energy Systems (15 CP)</td><td rowspan="2">TS:
Transformation Studies
(5 CP)</td><td rowspan="2">EWS:
Energy transition showcases
(5 CP)</td><td colspan="4">Required elective (1 out of 4)</td></tr>
<tr><td>TE 1
(5 CP)</td><td>TE 2
(5 CP)</td><td>TE 3
(5 CP)</td><td>TE 4
(5 CP)</td></tr>
<tr><td rowspan="2">2nd semester
(fall)</td><td rowspan="2">SEnSe:
Sustainable and Just Energy System Solutions (15 CP)</td><td rowspan="2">EE:
Ecological Economics
(5 CP)</td><td rowspan="2">RTS:
Resource Transition & Sustainability
(5 CP)</td><td colspan="4">Required elective (1 out of 4)</td></tr>
<tr><td>TE 5
(5 CP)</td><td>TE 6
(5 CP)</td><td>TE 7
(5 CP)</td><td>TE 8
(5 CP)</td></tr>
<tr><td>3rd sem.</td><td colspan="7">TH:
Master’s Thesis
(30 CP)</td></tr>
</table>

Development specialization:

<table>
<tr><td rowspan="2">1st sem.
(early year)</td><td rowspan="2">ACES:
Analysis and Complexity of Energy Systems (15 CP)</td><td rowspan="2">SEAP:
Sustainable Energy Access Planning
(5 CP)</td><td rowspan="2">ODDC:
Organizations and Diversity in Development Coopera- tion
(5 CP)</td><td colspan="4">Required elective (1 out of 4)</td></tr>
<tr><td>TE 1
(5 CP)</td><td>TE 2
(5 CP)</td><td>TE 3
(5 CP)</td><td>TE 4
(5 CP)</td></tr>
<tr><td rowspan="2">2nd semester
(fall)</td><td rowspan="2">SEnSe:
Sustainable and Just Energy System Solutions (15 CP)</td><td rowspan="2">ICEP:
International Community Energy Project
(5 CP)</td><td rowspan="2">MPM:
Markets and Project Management
(5 CP)</td><td colspan="4">Required elective (1 out of 4)</td></tr>
<tr><td>TE 5
(5 CP)</td><td>TE 6
(5 CP)</td><td>TE 7
(5 CP)</td><td>TE 8
(5 CP)</td></tr>
<tr><td>3rd sem.</td><td colspan="7">TH:
Master’s Thesis
(30 CP)</td></tr>
</table>

Engineering specialization:

<table>
<tr><td rowspan="2">1. Sem.
(early year)</td><td rowspan="2">ACES:
Analysis and Complexity of Energy Systems (15 CP)</td><td rowspan="2">ES:
Energy Stor-age
(5 CP)</td><td colspan="4">Required elective (2 out of 4)</td></tr>
<tr><td>TE 1
(5 CP)</td><td>TE 2
(5 CP)</td><td>TE 3
(5 CP)</td><td>TE 4
(5 CP)</td></tr>
<tr><td rowspan="2">2. Seme ster (fall)</td><td rowspan="2">SEnSe:
Sustainable and Just Energy System Solutions (15 CP)</td><td rowspan="2">SE:
Sustainability in Engineering
(5 CP)</td><td colspan="4">Required elective (2 out of 4)</td></tr>
<tr><td>TE 5
(5 CP)</td><td>TE 6
(5 CP)</td><td>TE 7
(5 CP)</td><td>TE 8
(5 CP)</td></tr>
<tr><td>3. Sem.</td><td colspan="6">TH:
Master’sThesis
(30 CP)</td></tr>
</table>

(7) The degree program is divided into the following modules:

Module	**Prerequisites**	**Types of courses (number, type and SWS)**	**Required attendance**	**Exam**	**Exam**	**Grading**	**CP**
ACES: Analysis and Complexity of Energy Systems (required for all specializations)	-	2 V: 4 SWS each 1 S: 4 SWS	-	-	Project-oriented group term paper (approx. 8,000 words) & presentation (30 minutes)	Yes	15
SEnSe: Sustainable and Just Energy System Solutions (required for all specializations)	-	2 V: 2 SWS each 1 V: 4 SWS 1 S: 4 SWS	-	-	Project-oriented group term paper (approx. 8,000 words) & presentation (30 minutes)	Yes	15
EE: Ecological Economics (required for specialization in Transition)	-	1 S: 4 SWS	-	-	Poster development & presentation (15 minutes) or project-oriented term paper (approx. 4,000 words) & presentation (15 minutes) or written exam (90 minutes)	Yes	5
EWS: Energy Transition Showcases (required for specialization in Transition)	-	1 S: 4 SWS	-	-	Poster development & presentation (15 minutes) or project-oriented term paper (approx. 4,000 words) & presentation (15 minutes) or written exam (90 minutes)	Yes	5

Module	**Prerequisites**	**Types of courses (number, type and SWS)**	**Required attendance**	**Exam**	**Exam**	**Grading**	**CP**
TS: Transformation Studies (requiredfor specialization in Transition)	-	1 S: 4 SWS	-	-	Poster development & presentation (15 minutes) o- project-oriented term paper (approx. 4,000 words) & presentation (15 minutes) or written exam (90 minutes)	Yes	5
RTS: Resource Transition & Sustainability (required for specialization in Transition)	-	1 S: 4 SWS	-	-	Poster development & presentation (15 minutes) or project-oriented term paper (approx. 4,000 words) & presentation (15 minutes) or written exam (90 minutes)	Yes	5
SEAP: Sustainable Energy Access Planning (obligatory for EN specialization)	-	1 S: 4 SWS	-	-	Project-oriented term paper (approx. 4,000 words) & Presentation (15 minutes)	Yes	5
ODDC: Organization and Diversity in Development Cooperation (required for specialization in Development)	-	2 S: 2 SWS each	-	-	Individual term paper (approx. 4,000 words) and Presentation with moderation (45 minutes)	Yes	5

Module	**Prerequisites**	**Types of courses (number, type and SWS)**	**Required attendance**	**Exam**	**Exam**	**Grading**	**CP**
ICEP: International Community Energy Project (required for specialization in Development)	-	1 Ex: 15 SWS	ICEP-1 (Ex)	-	Documented project work, presentation and final report as a joint project (2,000 words per student)	Yes	5
MPM: Markets and Project Management: (required for specialization in Development)	-	2 S: 2 SWS each	-	-	Project-oriented term paper (approx. 4,000 words) & Presentation (15 minutes)	Yes	5
ES: Energy Storage (required for engineering specialization)	-	1 V: 4 SWS	-	-	Written exam (120 minutes)	Yes	5
SE: Sustainability in Engineering (required for specialization in Engineering)	-	1 V: 4 SWS	-	-	Written exam (120 minutes) or Poster development & presentation (15 minutes) or Project-oriented term paper (approx. 4,000 words) & Presentation (15 minutes)	Yes	5
TE 1: Advanced Mechanical and Plant Engineering Compo-nents I (required elective	-	1 V: 4 SWS	-	-	Written exam (120 minutes) or Poster development & pre-	Yes	5

Module	**Prerequisites**	**Types of courses (number, type and SWS)**	**Required attendance**	**Exam**	**Exam**	**Grading**	**CP**
for all specializations)					presentation (15 minutes) or Project-oriented term paper (approx. 4,000 words) & Presentation (15 minutes)		
TE 2: Advanced Mechanical and Plant Engineering Systems I (required elective for all specializations)	-	1 V: 4 SWS	-	-	Written exam (120 minutes) or Poster development & presentation (15 minutes) or Project-oriented term paper (approx. 4,000 words) & Presentation (15 minutes)	Yes	5
TE 3: Advanced Electrical Engineering Components I (optional for all specializations)	-	1 V: 4 SWS	-	-	Written exam (120 minutes) or Poster development & presentation (15 minutes) or Project-oriented term paper (approx. 4,000 words) & Presentation (15 minutes)	Yes	5
TE 4: Advanced Electrical Engineering	-	1 V: 4 SWS	-	-	Written exam (120 minutes) or Poster development & pre-	Yes	5

Module	**Prerequisites**	**Types of courses (number, type and SWS)**	**Required attendance**	**Exam**	**Exam**	**Grading**	**CP**
System I (required choice for all directions)					presentation (15 minutes) or Project-oriented term paper (approx. 4,000 words) & Presentation (15 minutes)		
TE 5: Advanced Mechanical and Plant Engineering Compo-nents II (required elective for all specializations)	-	1 V: 4 SWS	-	-	Written exam (120 minutes) or Poster development & presentation (15 minutes) or Project-oriented term paper (approx. 4,000 words) & Presentation (15 minutes)	Yes	5
TE 6: Advanced Mechanical and Plant Engineering Systems II (required elective for all specializations)	-	1 V: 4 SWS	-	-	Written exam (120 minutes) or Poster development & presentation (15 minutes) or Project-oriented term paper (approx. 4,000 words) & Presentation (15 minutes)	Yes	5
TE 7: Advanced Electrical Engineering	-	1 V: 4 SWS	-	-	Written exam (120 minutes) or Poster development & pre-	Yes	5

Module	**Prerequisites**	**Types of courses (number, type and SWS)**	**Required attendance**	**Exam**	**Exam**	**Grading**	**CP**
Components II (required choice for all directions of study)					presentation (15 minutes) or Project-oriented term paper (approx. 4,000 words) & Presentation (15 minutes)		
TE 8: Advanced Electrical Engineering Systems II (optional for all specializations)	-	1 V: 4 SWS	-	-	Written exam (120 minutes) or Poster development & presentation (15 minutes) or Project-oriented term paper (approx. 4,000 words) & Presentation (15 minutes)	Yes	5
TH: Master's thesis (required for all specializations)	-	1 K: 2 SWS	-	-	Master's thesis (8,000 words) and defense (30-minute presentation and 45-minute discussion)	Yes	30

§ 6 Types of courses

In addition to the types of courses specified in § 12 RaPO, the following types of courses are offered in the degree program:

Colloquium (K): The core element is the argumentative exchange on methods, research approaches and research procedures. The aim is to increase problem awareness and the ability to reflect as well as to expand and deepen the ability to participate self-critically in academic discourse, particularly with regard to the master's thesis.

Section 2 Module Examinations and Master's Examination

§ 7 Examination formats and their specific regulations

In addition to the examination formats explained in § 15 RaPO, the following examination formats are used in the degree program:

1. Disputation: A thirty-minute presentation of the master's thesis, followed by a five- and forty-minute oral examination in which the candidate discusses their master's thesis together with the assessors. An examination record of the disputation is prepared. Further details are regulated in § 12.
2. Poster development: Summarizing presentation of a content area on a scientific poster.

§ 8 Examiners

(1) By way of derogation from Section 6 (6) RaPO, academic staff with a doctorate are also entitled to examine the master's thesis without the participation of university lecturers and private lecturers who are active in teaching. At least one examiner must have taught in the relevant examination subject. Sentence 1 and Section 6 (1) RaPO apply accordingly for members of Flensburg University of Applied Sciences."

(2) In addition to the cases listed in Section 7 (4) sentence RaPO, the appointment of external examiners for the master's thesis can also be delegated to the chair of the Examination Committee.

§ 9 Grading

The overall grade of the M.Eng. Sustainable Energy is calculated from the arithmetic mean of the module grades weighted with credit points. Credit points from modules only graded as "passed" are not taken into account. When calculating the overall grade, only the first decimal place after the decimal point is taken into account; all other decimal places are deleted. § Section 17 (3) RaPO applies accordingly.

§ 10 Examination languages

Teaching and examination languages are generally German and English, in the Development specialization exclusively English. The determination of a different teaching or examination language takes place with the provision of the teaching and examination offer in accordance with § 2 RaPO. Students can request a different language as the examination language; the Examination Committee will decide on this.

§ 11 Master's thesis and defense

(1) The master's thesis takes five months to complete.

(2) Editorial changes to the title of the master's thesis are possible until submission. They require the written consent of the first supervisor.

(3) The master's thesis may also be approved as a group project, provided that the contribution of each candidate to be assessed as part of the examination is clearly distinguishable and assessable based on the indication of sections, page numbers, or other objective criteria that allow for clear differentiation.

(4) The master's thesis must be submitted in digital form. Authorized examiners may also request a written copy.

(5) Submission of the master's thesis is a prerequisite for admission to the defense.

(6) The disputation is an interdisciplinary oral examination based on the topic of the master's thesis. In it, the candidate should show that they

1. can independently explain and defend the results of his or her master's thesis,
2. is also able to recognize other problems related to the topic of the master's thesis in his or her field of study and to identify possible solutions, and
3. can apply the scientific knowledge gained in his or her master's thesis to issues in the field of his or her future professional activity.

The examination is conducted by the two authorized examiners, who have equal rights. The duration of the disputation comprises a 30-minute lecture open to the university and a discussion lasting a further 45 minutes. At the candidate's request, the authorized examiners may also allow other individuals, including non-university members, to take part in the presentation. The grade is calculated from the arithmetic mean of the individual assessments of the two authorized examiners. The disputation must be graded immediately. The grade must be communicated to the candidate immediately.

(7) Two thirds of the grade for the master's thesis and one third of the grade for the defense are included in the module grade for the master's thesis module.

§ 12 Scope and passing of the master's examination

(1) The master's examination consists of the required module examinations as well as the master's thesis and the defense. A total of 90 CP must be acquired.

(2) The master's examination is passed if all examinations listed in paragraph 1 have been passed and the required credit points have been earned.

Section 3 Final Provisions

§ 13 Transitional provisions

(1) These regulations apply

1. for all students who start their studies in the master's program Sustainable Energy beginning on Spring Semester 2025, and
2. for students who began their studies in the master's degree program in Energy and Environmental Management before Spring Semester 2025 and who have not successfully completed all of the examinations required for graduation by February 28, 2027, the new regulations shall apply as of March 1, 2027.

(2) Students in the master’s program in Energy and Environmental Management for whom these Degree Program and Examination Regulations do not apply pursuant to paragraph 1 may submit a request to continue and complete their studies under the provisions of these regulations. The application to transfer into the scope of these Degree Program and Examination Regulations may only be submitted in writing to the Examinations Office (SPA) within the first month of each new semester. This provision applies only on the condition that the student has not failed the master’s program in Energy and Environmental Management due to a final failed examination, lost their right to examination for any other reason, or been exmatriculated. Recognition of academic and examination achievements already completed under the previous version of the master’s program in Energy and Environmental Management will be based on an equivalence list prepared by the degree program coordinator. This list will be available for review from the Spring Semester 2025 onwards and will be used by the unit responsible for recognition.

§ 14 Entry into force, expiry

(1) These regulations enter into force on March 1, 2025.

(2) The Degree Program and Examination Regulations (statutes) of Europa-Universität Flensburg for the degree program Energy and Environmental Management / Energy and Environmental Management with the degree Master of Engineering (PStO M.Eng. EUM/EEM 2023) (NBl. HS MBWFK Schl.-H., p. 45) will expire at the end of February 28, 2027.

This translation isfor informational purposes. Only the German version of this text is legally valid.

Flensburg, January 15, 2025

Prof. Dr. Tabea Scheel

Dean of Faculty III of Europa-Universität Flensburg

Appendix: Additional modules for the specialization in Development according to § 2 paragraph 2

Module	**Types of courses (number, type and SWS)**	**Module requirements Exam**	**CP**
Business Economics	1 S: 4 SWS each	Written exam (120 minutes)	5
Micro and Macro Economics	1 S: 4 SWS each	Written exam (120 minutes)	5
Foundations of Energy Economics and Energy Management	1 S: 4 SWS each	Term paper (approx. 4,000 words)	5
Quantitative and Qualitative Research Methods	1 S: 4 SWS each	Written exam (120 minutes)	5
Introduction to Energy Systems Modeling and Simulation	1 S: 4 SWS each	Term paper (approx. 4,000 words)	5