

# **Eberswalde University for Sustainable Development**

## **Faculty of Forest and Environment**

### **UNIVERSITY and EXAMINATION REGULATIONS**

#### **for the international Master's Degree Course in *Forestry System Transformation* (Master of Science)**

*valid as of winter semester 2018/2019*

#### **Preamble**

By virtue of:

- Section 9 para. 1 to para. 3, Section 18 para. 1 to para. 4; Section 19 para. 1 and para. 2; Section 22 para. 1 and para. 2; Section 72 para. 2, no. 1 of the Brandenburg University and College Act dated 28 April 2014 (GVBL. [Brandenburg Gazette] I/14, no. 18) as amended on 1 July 2015 (GVBL. I/15. no. 18),
- of the University Examination Regulations (HSPV) dated 4 March 2015 (GVBL. II/15 no. 12),
- Section 1 and Section 2; Section 4 to Section 10; Section 13; Section 15; Section 19 and Section 20 of the Higher Education Admissions Ordinance (HZV) dated 17 February 2016 (GVBl. II/16 no. 6) as amended on 27 April 2017 (GVBl. II/17 no. 24),
- Section 21 of the Constitution of HNE Eberswalde dated 21 September 2015
- and the Framework University and Examination Regulations (RSPO) of HNE Eberswalde dated 23 March 2016, the Faculty Council of the Faculty of Forest and Environment passed the following University and Examination Regulations on 8 November 2017:

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## Section 1 Scope

These regulations shall determine the objective, contents, structure and sequence of the degree programme and the examination modalities for the *Master of Science* in the 4-semester *Forestry System Transformation degree programme* based on the Framework University and Examination Regulations of the Eberswalde University for Sustainable Development (HNEE) dated 23 March 2016. The regulations shall be supplemented by the curriculum and the module descriptions.

## Section 2 Subject and objectives of the degree programme

Students on this interdisciplinary and application-based degree programme shall earn the academic degree of Master of Science via the acquisition of theoretical and practical analytical knowledge and skills in the fields of forest resource management, ecological economics and environmental governance. The degree programme aims to produce interdisciplinary experts who are capable of understanding and assessing the abundance of forest ecosystems, forest functions and forest goods and services at the conceptual and methodological level and can develop stratagems for their sustainable provision based on innovative and sustainable management concepts, financial incentive systems and cooperative governance strategies. Graduates will acquire competence in the multi-criterial/holistic assessment of the opportunities and risks associated with available management strategies, including their social-ecological impact. In this context, multifunctional forest resource management concepts will be combined with concepts, methods and practical examples of ecologically- and socially-minded forest resource economics. This perspective is supplemented with the principles of environmental governance, transformation and innovation research, system modelling and a participative and adaptive institutional design. To this end, the students will acquire the natural, social, human and economic science expertise required to apply their knowledge in practice. Upon completion of the study programme, graduates will be capable of implementing the analytic, planning and design processes associated with future-oriented, integrated and sustainable forest resource management on an independent basis and with specific consideration of the subjects of institutional design and innovation potential.

The aim of the Forestry System Transformation degree programme is to enhance the students' knowledge and practical methodological skills in the field of forest ecosystem management and the sustainable use / preservation of forest resources and to relate such knowledge to different action levels in the management of complex socio-ecological systems, from the local level (identification of cultivation alternatives) to the global level (international environment and forestry policy). The students will develop an understanding of the various effects of changing conditions and changing use of forest resources on forest ecosystems, the provision of forest ecosystem goods and services and the associated value-added chains. In specific, the degree programme will examine socio-ecological interdependencies and will approach the recording and evaluation of forest ecosystem services and the coordination of forest resource use from the perspective of central institutional analysis and ecological economics. The course will cover analysis of development dynamics, current status and future development options of forest ecosystems, their services and social requirements in both rural and urban areas. These aspects shall be further examined from a social science perspective and will be discussed with reference to ecosystem processes and ecological limits.

## Section 3 Learning and course objectives

In terms of demand and practical application at work, the specific course objectives shall prepare graduates for the following application areas:

- Consultation of forestry or forestry-related companies as well as companies working in the bioeconomy focussing on forest ecosystem cultivation and the identification of cultivation alternatives;
- Development of strategies promoting innovation- and transformation-based approaches in the field of sustainable natural resource use;
- Political consulting for public administrations on the integration of ecosystem goods and services and utilisation potential in spatial development;
- Further academic education.

The following skills will be taught to achieve these objectives:

- System theoretical, technical and methodical expertise in natural science and social science with a socio-economic focus;
- Competence to make decisions and act in the field of natural resource management with a view to diverse ecosystem goods and services/bundles between the opposing poles of social demands and ecosystem-related limits to the cultivation of forest ecosystems
- Presentation and communication skills
- Ability to work in a team, presentation and conflict-resolution skills
- Soft skills in the field of international and interdisciplinary project and research work.

#### **Section 4 Consecutivity and image**

The consecutive Master's study programme follows on from the International Forest Ecosystem Management (B.Sc.) and Forestry (B.Sc.) bachelor programmes and is also suitable for applicants with other bachelor degrees relating to (forest) ecosystems/sustainable natural resource management and socio-ecological system research.

This includes, in particular, degree programmes in the following fields:

- agriculture and forestry, agricultural and forestry sciences;
- nature conservation, environmental sciences (excluding environmental technology);
- environmental and resource economics
- teaching qualifications in the above areas of science, provided both teaching subjects are part of the above areas of science.

#### **Section 5 Course admission**

- (1) The course shall start in the winter semester of each year.
- (2) In the case of restricted admission, German candidates may apply directly to HNEE until 15 July of each year. International applicants (i.e. all applicants whose first degree was not awarded in Germany) may apply until 1 May of each year. International student applications are subject to an external and fee-based preliminary assessment by UNI-ASSIST (service office for international student applications; [www.uni-assist.de](http://www.uni-assist.de)).
- (3) Admission requirements for the Master's study programme consist of
  - a first vocational university degree (Bachelor, Diplom, Diplom (FH), Magister or Master) with an official study period of at least 6 semesters or with a scope of at least 180 ECTS credits and
  - evidence of English language proficiency pursuant to Section 5 para. 4.
- (4) Since the course is taught in English, all applicants must provide evidence of their proficiency in the English language to meet the admission requirements: European Reference Framework level of B2 or above, or comparable qualifications (see Appendix 3). Students shall submit a copy of the respective language certificate for an equivalence check. Applicants whose native language in their home country is English are not required to submit a language proficiency certificate. In respect of a country's native language, the German Foreign Office's country information shall apply (see Appendix 4). Graduates of English degree courses, in particular graduates of the *International Forest Ecosystem Management* (B. Sc.) course at HNEE, are not required to provide any further linguistic evidence. Where candidates are still awaiting proof of English proficiency at the time of admission, provisional admission may be granted. The corresponding proof shall be submitted by the time of the second semester re-registration.
- (5) In the case of restricted admission, the number of available places shall be published every year in the State of Brandenburg's Admissions Numbers Regulation. If the number of applicants exceeds the number of available places, the places shall be allocated in accordance with the University Admission Act of the State of Brandenburg (BbgHZG) and the State of Brandenburg's Regulation Pertaining to the Allocation of Places at Universities and Colleges in Courses with Restricted Numbers (HZV) as well as the statutes of the Eberswalde University for Sustainable Development pertaining to the selection of students in degree courses with locally restricted admission as amended.

## Section 6 Course structure and credits

- (1) The official study period is four semesters. The full-time degree programme is divided into:
  - 1st semester: Students will acquire the fundamental skills in the fields of analysis, strategy and instruments that enable them to identify the status quo of forest ecosystems and management, social developments, governance systems and institutional framework conditions.
  - 2nd semester: Focus on sustainability-based transformation strategies in the field of forest ecosystem management, their implementation and evaluation.
  - 3rd semester: Independent research project (and hence further specialisation) at HNEE or a selected institution in Germany or abroad, accompanied by a research colloquium.
  - 4th semester: Master thesis and its defence; additional participation in an accompanying Master's theses colloquium.
- (2) In the context of the independent research project to be completed in the third semester, projects that correspond to 24 ECTS credits (as a rule 12 weeks + 3 weeks for the project report) shall be planned in consultation with the course director. In the context of the research project, students shall carry out independent, in-depth study of contents in the field of Forestry System Transformation. The project shall be implemented at a suitable business enterprise, association, authority, organisation or other institution in Germany or abroad. Due to insurance-related reasons and the safeguarding of the students' project content, a project agreement/internship contract shall be concluded for the period students spend at the company, organisation or other institution. During the research project, an accompanying research colloquium shall be held.
- (3) The programme is not designed for part-time study.
- (4) From the first semester onwards, students may specialise by choosing compulsory elective modules from one of the following two areas of specialisation:
  - I. Forest Management Strategies for Ecosystem Service Provision (FMS)
  - or
  - II. Transformation and Innovation (T&I)The requirements applying to the recognition of the area of specialisation shall be met when students attend a compulsory elective module from the chosen area of specialisation in the first and second semester and write a relevant project paper in the chosen area of specialisation in the third semester. Students are required to earn a minimum of 12 ECTS credits (equals 2 compulsory elective modules) in the compulsory elective modules of their chosen area of specialisation.

The choice of an area of specialisation is not mandatory.
- (5) The structure and objective of the course and classes is set out in the curriculum. The curriculum is part of these University and Examination Regulations (see Appendix 1).
- (6) The entire degree course is modular and includes mandatory and compulsory elective modules. The language of instruction is English.
- (7) On successful completion of the module examinations and assessments, credits shall be awarded in accordance with the European Credit transfer System (ECTS). As a rule, students are required to earn a total of 30 credits per semester in all available modules (mandatory and elective). The workload corresponding to 1 ECTS credit is 30 hours. The minimum number of credits needed for the master's degree is 300 ECTS credits including the preceding bachelor degree. 120 of these credits should be earned in the Forestry System Transformation degree programme, based on a completed degree with a minimum of 180 ECTS credits. 108 ECTS credits shall be awarded in mandatory modules and 12 ECTS credits in compulsory elective modules.
- (8) In addition, further modules may be taken as elective modules pursuant to Section 5 para. 3 RSPO. These modules shall not contribute to the credits according to paragraph 5; however, on application, they may be mentioned on the students' certificate.

- (9) The ECTS credits students must earn in the compulsory elective modules may be transferred from one semester to another. Provided the respective conditions are met, students may take compulsory elective modules from higher semesters or, in exceptional cases, catch up on such modules from earlier semesters. For mandatory modules from higher semesters, students shall submit a respective application to the examination committee.
- (10) A curricular exception exists in the form of 'specialisation modules' (not part of compulsory elective modules in the curriculum). These modules serve to elaborate on and explicitly supplement the curriculum courses and shall comply with the objectives of the degree programme as stated in Section 3. Specialisation modules may consist of currently added courses within the chosen degree programme or courses from other master's programmes (e.g. master's programmes offered at HNEE or other universities). As a rule, students may take such modules once during the study period and will earn 6 ECTS credits for this. If the chosen specialisation module provides less than 6 ECTS credits, students shall earn any credits missing from the 120 ECTS credits required for the award of the master's degree by attending further modules. Specialisation modules require an application by the students and the approval of the study programme director.
- (11) Elective modules may not be chosen more than once. If the number of applicants exceeds the places offered for the respective compulsory elective module, applications in the semester in which the compulsory elective module is offered according to the curriculum shall take priority. 10% of places may be awarded directly by lecturers. As a rule, registration and selection for the elective and compulsory elective modules takes place at the beginning of the examination period of the preceding semester (exception: in the first semester, registration and selection takes place in the first week of the lecture period).

### **Section 7 Type, scope and assessment of examinations**

- (1) The type and scope of the module examinations are specified in the curriculum and the module descriptions. As a rule, exams shall be held at the end of the respective module (in the case of block courses) or during the examination period of the respective semester.
- (2) The projects planned and carried out in the context of the independent research project in the third semester require the course director's prior approval (see Appendix 1). Projects shall be assessed by project supervisors / examiners who are appointed by the course director.
- (3) In the case of oral examinations, which take the form of oral reports by groups of students during classes, one examiner is generally sufficient.
- (4) Candidate will pass module examinations if the module grade achieved is at least "sufficient" (4.0). In modules with continual assessment (submodule exams), the overall grade shall be calculated as the arithmetic mean of the individual grades, taking into account the weighting of the continual assessment results in the curriculum. Continual assessment results below "sufficient" (4.0) may not be repeated if the overall module exam result is at least "sufficient" (4.0).
- (5) If a subject cannot be taught due to an insufficient number of participants (<5) students shall be divided among the remaining compulsory elective modules.
- (6) On registration for a compulsory elective module, the corresponding module shall be treated as a mandatory module with regard to examinations. Hence, the students shall be automatically registered for the associated module examinations.
- (7) The type and scope of the academic performance achieved during the course shall be accredited according to the European Credit Transfer System (ECTS). Credits shall be accumulated in order to earn the master's degree. Accordingly, candidates shall pass the master's examination if
  - a) they have passed all module examinations with a grade of "sufficient" or higher;
  - b) they have passed the independent research project with a grade of "sufficient" or higher;
  - c) they have completed the master thesis including its defence with a grade of "sufficient" or higher.

- (8) The overall grade of the master examination is calculated as the average grade composed of the weighted individual module grades. The weighting corresponds to the award of credit points under the ECTS scheme.

### **Section 8 Examination deadlines and resits**

- (1) Students are required to take the module examinations required to pass the semester (as a rule 30 ECTS credits) by the end of each semester. Except in cases of illness, students must deregister from examinations no later than 7 calendar days before the start of the examination using the HNEE Campus Management System. In the case of unexcused non-attendance, students will be deemed to have failed the examination. Where candidates cannot attend an examination due to illness, they are required to submit a doctor's certificate confirming their incapacity to attend within three working days of the examination date. In the case of a negligent delay, students will be deemed to have failed the examination.
- (2) As a rule, resits are offered during the examination period of the subsequent semester.
- (3) Failed exams may be repeated twice, with the exception of the master thesis and its defence.

### **Section 9 Master thesis and defence**

- (1) The study programme includes a scientific master thesis corresponding to 26 ECTS credits and its defence which corresponds to 4 ECTS credits.
- (2) Candidates are responsible for obtaining the subject of their master thesis and finding a supervisor, who will usually act as first assessor, as well as a second assessor. The subject of the master thesis may be issued or confirmed by professors or honorary professors representing the respective specialist area in the Faculty of Forest and Environment.
- (3) In conjunction with the registration, students shall submit a written exposé of the envisaged master thesis to their supervisor. Candidates have a maximum of 4 weeks to complete the master thesis. In justified exceptions an extension of max. 2 months can be granted. The corresponding decision is taken by the examination committee on a case-by-case basis.
- (4) The master thesis shall be registered with the faculty director's offices and put on record.
- (5) The subject of the final thesis shall not be issued before students have successfully achieved a significant majority of the required academic and examination performance, as a rule after the successful achievement of an academic and examination performance of at least 75% (= 67 ECTS credits) of the required total number of credits less the credits earned by the master thesis and its defence. After the successful achievement of the required academic and examination performance, the subject of the thesis shall be issued no later than four weeks after the registration. If the registration is not effected after the required examination performance has been achieved or if no extension has been applied for or complied with, the master thesis is deemed to be a fail.
- (6) The form of the master thesis shall conform with the scientific reporting standards.
- (7) In consultation with the person in charge of the specialist area, the thesis may be written either in German or in English. All theses which are not written in German shall include a German summary.
- (8) On registering their thesis, candidates shall declare whether they agree to the publication of their master thesis or parts thereof by the university and the granting of the respective use and exploitation rights to the university, as well as to the withdrawal of the exploitation rights during the blocking period if the master thesis is blocked for library use.

- (9) The subject of the thesis may be returned no more than once within four weeks of registration. The re-registration shall be effected within four weeks. The examination committee shall decide on any exceptions on request.
- (10) 4 copies of the master thesis shall be submitted to the faculty director's office in due time or sent to the faculty director's office postmarked no later than the last day of the deadline. The submission date shall be recorded by the faculty director's office. As part of the thesis, candidates shall confirm in writing that they have written the master thesis themselves – in case the work was done in a group that they have written their section of the work themselves – and that they have used no sources or aids other than those specified.
- (11) Furthermore, at least one of the 4 hardcover copies (for the 1st assessor) of the master thesis shall be submitted in conjunction with a suitable storage medium containing a copy of the entire work (preferably in MS Word format) as well as all basic and metadata related to the work.
- (12) The master thesis shall be assessed by two assessors. The arithmetic mean of the two grades, which shall be "sufficient" or higher, shall account for 70% of the overall thesis grade. Where the grades of the two assessments deviate by more than 1.0, a third assessment shall be carried out. In this case, the overall grade shall be the arithmetic mean of the three assessment grades, which shall be "sufficient" or higher. The third assessor shall be appointed by the examination committee.
- (13) The thesis and its defence shall be assessed by a minimum of two examiners in the specialist area to which the thesis relates. At least one examiner, usually the first examiner, shall have the qualifications required under the Brandenburg University and College Act and hold an independent, autonomous teaching position in the respective specialist area at the university. This examiner may also be a junior professor in the specialist area.
- (14) The master thesis shall be assessed within a period of six weeks.
- (15) The blocking period or release of the master thesis for library use shall be stated in all deposit copies.
- (16) Master theses shall be incorporated into and archived at the university library.
- (17) Where students fail the master thesis including its defence, this examination may be repeated once provided the maximum study period is not exceeded. In the event of repetition, the final thesis shall be registered no later than 6 months after the announcement of the results of the first examination attempt. The right to repeat the examination shall expire if the deadline is not complied with.
- (18) The thesis may be completed by a group of no more than 3 students if the individual candidate's contribution, which will be assessed as his or her examination performance, can be clearly distinguished and is assessable based on the use of sections, page numbers or other objective criteria.
- (19) The master thesis shall be completed with its defence. The defence grade, which shall be "sufficient" or higher, accounts for 30% of the overall thesis grade. The public examination shall be divided into a 20-minute presentation and a subsequent 30-minute discussion. The defence shall take place soon after the thesis assessments have been submitted. Exceptions shall be decided by the examination committee. The examination committee shall consist of a minimum of two lecturers.

### **Section 10 Graduation**

- (1) Once the master's examination has been passed, a Master of Science degree shall be awarded. The common international abbreviation "M.Sc." shall apply.
- (2) The master degree certificate (transcript of records), the master's degree document and the diploma supplement shall be issued in German and English. The certificate shall contain all module examination grades and the master thesis grade and shall list the overall weighted grade in accordance with the

academic credits achieved as well as the area of specialisation if applicable. The final certificate shall bear the date of the last examination required to complete the degree programme.

### **Section 11 Entry into force and transitional provisions**

- (1) These University and Examination Regulations shall enter into force on the day of their publication on the HNE Eberswalde website.
- (2) The Regulations shall apply to all students who enrol for the Forestry System Transformation master's degree after these University and Examination Regulations have entered into force at HNE Eberswalde.

Appendix to the University and Examination Regulations:

1. Curriculum and module descriptions
2. Diploma supplement
3. Recognition of language certificates
4. List of countries with English as native language

Semester	Status	Module	Module coordinator	Module components (if existing)	Goal of module component	Lecturer	SWH	Workload	Credits	Teaching form	Teaching language	Examination form
1	M	Rethinking environmental economics I	Mann	Introduction to resource uses and economic concepts	Students have a solid understanding of concepts and methods of environmental, ecological and natural resource economics. They are familiar with the dynamics of economic systems, functioning of markets, reasons for market failures and potential solutions. They are able to discuss the relevancy of these concepts for sustainable forest management and to optimise the use of forest resources, being aware of their respective chances and limitations.	Mann	2	3				
				Human wellbeing, ecosystem functions, services and valuation approaches	Students are enabled to understanding the ecosystem services concept, its background and rationales, as well as the current state of scientific research and policy. They are familiar with definitions, typologies, and frameworks that link ES to wellbeing, and with recent socio-political and scientific debates for mapping, indicators & valuation. Based on case study examples, they can analyse chances and challenges of the ES concept and distinct valuation approaches for political and economic decision-making, know about the challenges to communicate to the science-policy/practice interface, and are able to develop strategies for overcoming them.	Mann			6	L, S, PE	E	OR
1	M	Future management systems I	Guericke	Forest management systems for ecosystem services	Students gain knoweldge about a wide spectrum of forest management systems for ecosystem service provision. They are familiar with existing and potential future societal demands concerning forestry systems and understand how these change over time. They have a good understanding of forest management approaches and their influences on different kinds of ecosystem services. They are enabled to suggest and debate organisational, procedural, and institutional adjustment needs and potentials, to provide a holistic view on forestry system transformation demands and options.	<u>Guericke</u> , Spathelf, Cremer et al.	2	3				
				Silvicultural management based on growth modelling for decision support	Students are enabled to guide structured goal-setting processes and to define operational realizable and measurable goals. By means of selected case studies (forestry enterprises of different types of ownership) and self-defined target hierarchies the influence of different silvicultural strategies and management decisions can be quantified on the basis of forest growth model calculations. The students are able to apply growth models and software with integrated GIS components and to evaluate and map the results of different mid-term scenario simulations. Students are enabled to weight the results of different target and management strategies by applying decision support systems. They are able to identify potentials and processes for the optimization of target hierarchies and to implement silvicultural control processes in the sense of adaptive management.	Guericke et al.			6	L, PE, P	E	PR

Semester	Status	Module	Module coordinator	Module components (if existing)	Goal of module component	Lecturer	SWH	Workload	Credits	Teaching form	Teaching language	Examination form
1	M	Forest governance and policy I	Mann	Concepts, institutions and actors	Students understand, can explain and analyse environmental governance systems. Rooted in a new institutional economics and political sciences understanding, students can distinguish between governance structures, institutions, actors and organisations. In particular they are familiar with key policy and governance concepts relevant for sustainable natural resources management and use. Besides the deepening of dedicated governance systems, students are able to explain and handle multiple realities for collaboration, integrated and adaptive approaches, and conflict management.	Mann, Walk, Welp	2	3				
				Environmental policy and nature conservation	Students are familiar with the general objectives, tools and current debates of environmental-, nature- and biodiversity conservation policy on different levels. They know the basic environmental governance structures, and the different policy instruments at stake to manage environmental problems. They are able to discuss the chances and limitations of these policy approaches in a nuanced way. For dedicated environmental policy arenas, students can analyse central actors, inherent problem perceptions and ideas for policy solutions. They are able to analyze participatory governance in different policy fields.	Walk, Ibisch, Welp, Mann		6	L, S, P	E	PP <sup>1</sup> (50%), PR <sup>1</sup> (50%)	
1	M	Resource competition	Mund	Spatial dimension, assessment and solutions	Students have knowledge about recent spatial competitions on forest resources based on conceptual and methodical approaches. They are aware about potential political solution and feasible counter management strategies such as land management measures and forest policy decisions. They are able to apply monitoring tools and develop monitoring strategies integrating spatial data products and global monitoring services. A primary objective is that the students are eventually in the position to carry out their own monitoring projects, and that they have the criteria to judge the quality of monitoring projects in general.	Mund	2	3				WR <sup>2</sup> (50%)
				Ecosystem modelling	Students gain knowledge and acquire the methodological skills for the development of simulation models of ecological and technical systems. They are enabled to describe, analyse and evaluate dependencies and interrelations between observations and processes in the field of the environment and economics on the basis of empirical data.	Schultz et al.		6	L, S, PE, P	E	TD <sup>2</sup> (50%)	

Semester	Status	Module	Module coordinator	Module components (if existing)	Goal of module component	Lecturer	SWH	Workload	Credits	Teaching form	Teaching language	Examination form
1	E	Forest management strategies for ecosystem service provision I	Guericke	Carbon sequestration and accounting	Students understand the carbon cycle with special reference to forests, soils and forest products. They are qualified to develop and critically reflect forest growth scenarios and have acquired basic knowledge of the purpose and the implementation of life cycle analysis (LCA), product carbon footprints (PCF) and corporate carbon footprints (CCF).	Guericke, Riek, Cremer	4	6	6	L, P	E	WR
1	E	Transformation and innovation I	Mund	Assessment tools and methods: Forest 4.0 / Parametrization and spatial assessment of biomass	Students are aware of the principal methods and innovative technical tools for estimating, quantifying, calculating and mapping the baseline of different carbon pools and to monitor carbon stock changes related to various forest and land management measures. After the course, students have a solid foundation of principal concepts of biomass and carbon quantification and their specific cycles. Students know about the advantages applying remote sensing and modelling techniques for the spatial assessment and modelling of forest biomass at different scales. Students will learn about different carbon parametrization, quantification or simulation models for forest biomass on a landscape level and discuss methods to quantify forest biomass and estimate the forest carbon stock and their uncertainty.	Mund	4	6	6	L, S, PE	E	PP <sup>1</sup> (50%), PR <sup>1</sup> (50%)
1	E	Specialisation module I	Head of study programme		Students deepen their professional knowledge and skills in an specific area relevant to forestry system transformation. Students identify their specific personal interests in the field of forestry system transformation and broaden their technical and scientific horizon.		4	6	6	tbd	tbd	tbd

Semester	Status	Module	Module coordinator	Module components (if existing)	Goal of module component	Lecturer	SWH	Workload	Credits	Teaching form	Teaching language	Examination form
2	M	Rethinking environmental economics II	Mann	Economy – ecology system interactions	Students acquire knowledge on economy - ecology system interactions conceptualized as 'social-ecological systems' (SES). They gain a system-based understanding of system dynamics, stability and change, and economy as an integral part of the environment that needs to be understood in its uncertainties and limitations. Students are introduced to SES analysis frameworks, and will be able to apply them. The crucial role of institutions that mediate system interactions is highlighted. Alternative concepts for economic growth and human well-being are introduced and related critical issues such as ethics, fairness and equity debated.	Mann	2	3		L, S, P	E	PP
				Bioeconomy strategies	Students have a good understanding of the Bioeconomy concept in general. They understand the aims of different concepts and strategies related to Bioeconomy and how an efficient and resource-friendly use of natural resources such as plants, animals, and microorganisms shall be achieved. They can identify bioeconomy potentials of a range of various institutional, economic and biophysical settings with a special focus on forestry and analyze in how far these play a crucial role for shaping the countries bioeconomy strategies. Further, students are able to derive implications for a sustainable forest resource	Cremer, Mann	2	3				
2	M	Future management systems II	Spathelf	Strategic silvicultural planning & management	Students are familiar with basics of sustainable biomass production in forests (forest ecosystems, dendrochronology, forest growth science).	Spathelf et al.	4	6	6	L, S, PE	E	WE120
2	M	Forest governance and policy II	Mann	Conflicts, cases and conflict management	Students gain a basic theoretical and practice-oriented understanding of conflicts in the realm of natural resource use and forest management. They are familiar with different types of (land-use) conflicts, conflict theory, distinct sets of conflict resolution strategies and underlying principles. They can analyse and derive conflict management strategies for sustainable land-uses and forest management that seem suitable for a range of distinct situations.	Mann, Ibsch, Welp	2	3				
				Social science analysis of conflict cases	Students know about political institutions, actors and decision-making processes of climate policy. They are able to work on questions such as why do some interests groups have more influence in political processes than others? Students know about main empirical social science methods, types of data, and techniques for collecting social science data. They can decide for and apply different methods for different kinds of research questions (policy analysis, constellation analysis, network analysis). In addition, they can develop and discuss a variety of governance concepts.	Walk, Mann	2	3	6	L, S, P	E	PP
2	M	Socio-technical system transformation	Walk	Transformation governance	Students become acquainted with theories and concepts of transformation. They learn about actors, strategies and governance of transformation processes. Of special interest are civil society organizations and social movements. Students learn what a social movement is and about their part in transforming societies and stimulating rapid periods of cultural evolution. Students are enabled to reflect upon the role of civic, private and public sector institutions in transformation processes towards sustainable development.	Walk, Nölting	2	3				
				Innovation types, patterns and processes	Students gain a comprehensive understanding of-, and insights into, different innovation types as part of broader transformation strategies. Guided by a socio-ecological-technical system-based innovation understanding, they are able to differentiate between technology innovations, social innovations, governance and policy innovations as well as innovative forms of organisations related to natural resources provision and use. As such students gain a wide spectrum of conceptual and practice knowledge ranging from technical-production processes such as for bioenergy up to cooperative forms of organisation.	Mann	2	3	6	L, S, P	E	OR

Semester	Status	Module	Module coordinator	Module components (if existing)	Goal of module component	Lecturer	SWH	Workload	Credits	Teaching form	Teaching language	Examination form
2	E	Forest management strategies for ecosystem service provision II	Schröder	Water management	Students are able to explore the close interrelations between forests and water. They can build on insights from forest site classification systems as well as forestry-related hydrological-meteorological findings, and understand the relevancy of forest management for water regulation in the light of global change problems. They can examine and debate the particular role of forests and its water regulation and adaptation abilities, its influence on water and heat systems, buffer functions and risks. The fundamental importance of water availability for ecosystem services will be highlighted together with management options for forests supporting their adaptive capacity. Students can recognise various context conditions, institutional frameworks and social demands for the use of water resources and elaborate sustainable water management strategies.	Schröder et al.	2	3	6	L, S, P	E	PP
				Nutrient management	Students get to know relevant nutrient cycles, their importance for functioning forest ecosystems stability, robustness and resilience, and possibilities of influencing them as part of forest and water management strategies.	Schröder et al.	2	3				
2	E	Transformation and innovation II	Pfriem	New products, processes and strategies	Students gain a solid understanding of the complexity of wood and the wood processing industry - as an optimization problem where maximal value yields are sought from a limited amount of the basic commodity, wood, which is sorted according to its characteristics in order to meet the demands posed on the final product in terms of both esthetic and technical properties. The students acquire special knowledge in material technology in order to understand complex and innovative materials manufactured according to the prior art, and products based on wood and other materials.	Pfriem et al.	4	6	6	L, S, PE	E	OR
2	E	Specialisation module II	Head of study programme		Students deepen their professional knowledge and skills in an specific area relevant to forestry system transformation. Students identify their specific personal interests in the field of forestry system transformation and broaden their technical and scientific horizon.		4	6	6	tbd	tbd	tbd

Semester	Status	Module	Module coordinator	Module components (if existing)	Goal of module component	Lecturer	SWH	Workload	Credits	Teaching form	Teaching language	Examination form
3	M	Transformation pioneers	Mann	Project design and management	The seminar helps students to plan their own transformation project of moderate size related to the study programme's content. It takes them step by step from the first idea to a detailed project concept. Students acquire further skills in interdisciplinary scientific work and self-management. Students do not need any previous knowledge to take part in this course.	Walk	2	3	6	S, P	E	PR
				Communication and marketing	Students get to know strategies for scientific communication, moderation and marketing. They are able to communicate results to expert and lay audience and get to know a range of dissemination strategies and media.	Mann	2	3				
3	M	Research project	Mann		The students accomplish a research project of moderate size related to the study programme's content. With the selected thematic orientation of the project, students can fulfill, in addition to the two complementary elective moduls, their study orientation.	Mann, Cremer, Nowicki	20	24	24	P	E	PR*
4	M	Master thesis colloquium	Mann	Master thesis colloquium	Students have to discuss and present their Master thesis topics, thesis design, conceptual orientation and expected results and challenges (in small groups and in plenum).	Mann, Cremer, Nowicki, et al.	2	4	4	S	E	PP
4	M	Master thesis & defence	Mann	Master thesis & defence	Students obtain own research results while solving and discussing a scientific problem. Students present the research results of their master thesis and are able to defend its underlying assumptions, methodologies, and robustness of the key findings.	Mann, Cremer, Nowicki, et al.	20	26	26	P	E/G (tbd)	PR (70%) PP (30%)

<sup>1</sup> exams refer to all components of the module

<sup>2</sup> exams refer only to one module components, according to the location indicated in the curriculum

\* exam not graded (evaluated as "passed" / "not passed")

Mandatory module (M)
Elective module (E)
Research semester / Thesis

Teaching form				Examination form								
Lecture	Seminar	Practical Exercise	Project	Technical discussion	Project presentation	Oral report	Written exam	Term paper	Protocol	Work report	Project report	
L	S	PE	P	TD	PP	OR	WE	TP	P	WR	PR	

SWH = Semester work hours; M = Mandatory module; E = Elective module

# DIPLOMA SUPPLEMENT

This Diploma Supplement model was developed by the European Commission, Council of Europe and UNESCO/CEPES. The purpose of the supplement is to provide sufficient independent data to improve the international 'transparency' and fair academic and professional recognition of qualifications (diplomas, degrees, certificates etc.): It is designed to provide a description of the nature, level, context, content and status of the studies that were pursued and successfully completed by the individual named on the original qualification to which this supplement is appended. It should be free from any value judgments, equivalence statements or suggestions about recognition. Information in all eight sections should be provided. Where information is not provided, an explanation should give the reason why.

## 1 Holder of the qualification

1.1 Title, First Name and Family Name

.....

1.2 Date, Place and Country of Birth

.....

1.3 Student ID Number or Code

.....

## 2 Qualification

2.1 Name of Qualification (written out, abbreviated)

.....

2.2 Main Field(s) of Study for the Qualification

.....

2.3 Institution Awarding the Qualification

.....

2.4 Institution Administering Studies

.....

2.5 Teaching / Examination Language(s)

.....

## 3 Details on the Level of the Qualification

3.1 Level of the Qualification

.....

3.2 Official Length of Study Programme

.....



## Appendix 2: Diploma Supplement

### Study and Examination Regulations *Forestry System Transformation* (M.Sc.) 2018/19

#### 3.3 Access Requirements

All candidates must provide evidence of a successfully completed study (Bachelor, Diploma, Engineering, Magister Artium or Master). As a requirement for admission, all candidates must demonstrate a good knowledge of English: Common European Framework of Reference for Languages (CEFR) Level B2 or similar qualifications. Candidates who do not fulfill these requirements can receive a temporary admission and need to provide adequate evidence until the re-registration for the second semester. Knowledge of the German language is no requirement. Graduates of German degree courses apply directly at the HNEE. About 40% of study places are reserved for foreign applicants. Graduates of foreign degree courses need to send their application to ASSIST in Berlin. Please make use of the application form or the online application by ASSIST.

Admission to the course is restricted. If the number of applicants exceeds the number of assigned places, a selection procedure will award at least 60% of study places according to the degree of qualification according to statutes concerning the university selection procedure of the Land Brandenburg (Hochschulvergabeverordnung - HVVBbg) in the valid version (cf. § 4 Para. 4 of the statutes of the university selection procedure of the study programme).

# 4

## Details on Contents and Results Achieved

### 4.1 Mode of Study

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#### 4.2 Study Programme Requirements and Graduate Qualification Profile

##### Goal of the Study Programme

Students will develop an understanding of the impact of the changing conditions and changing use of forest resources on forest ecosystems, ecosystem goods and services and the connected value-added chains.

By analysing and developing solutions, for example approaches to resolving conflicts of use in (forestry) practice, graduates will acquire the skills to recognise these and other trends and to critically examine, support and actively shape processes of change. The course focuses specifically on the opportunities and limitations associated with market, state and network-based solution strategies in forestry and environmental governance.

##### Qualification Profile of the Graduate

The study programme provides students with qualifications in the following four subject areas: Forest Resource Management, Ecological Economics, Governance and Policy and Innovation and Potentials, which prepare the graduates to work in a variety of application fields. This includes (a) business consulting for forest ecosystem cultivation and identification of cultivation alternatives, (b) development of strategies for an innovation- and transformation-based approach to the sustainable use of natural resources, (c) political consulting for public administrations promoting the integration of ecosystem goods and services and potential uses in spatial development and (d) further academic education. The overall learning objectives concentrate on the most common application fields for forest ecosystem managers with a socio-economic focus. Nevertheless, the potential application fields are more extensive than shown in the following overview which sets out the future qualification of all students.

Students will not necessarily attend all of the elective modules. As the listed modules contribute to varying extents to the overall learning objectives, the students' choice of modules reflects their particular interest in a specific application field. The elective modules chosen by the students will be specified on the certificate (transcript of records).

## Appendix 2: Diploma Supplement

Study and Examination Regulations *Forestry System Transformation* (M.Sc.) 2018/19

Overall learning objectives	Qualification of learning outcomes	Modules (Status / ECTS Credits) (M=Mandatory; E=Elective)
<p><b>Experts for forest / forest-relevant companies and bioeconomy companies that develop management strategies for the provision and use of forest ecosystem goods and services.</b></p> <p>Graduates will acquire the skills necessary to identify and assess potential uses for ecosystem goods and services. Based on sustainable cultivation strategies, they will be able to optimise existing and develop new business segments. They will be capable of integrating social needs and the limitations of the ecosystem.</p>	<p><b>Knowledge</b></p> <ul style="list-style-type: none"> <li>- Graduates acquire a broad understanding of potential forest ecosystem goods and services as well as their identification, provision and marketing.</li> <li>- Graduates are acquainted with relevant forest ecosystem cultivation approaches with a focus on different forest ecosystem goods and services.</li> <li>- Graduates gain a profound understanding of social demands on forest ecosystems and their impact on management approaches.</li> <li>- Graduates gain thorough knowledge of the ecosystem-related limitations of forest ecosystem cultivation.</li> </ul> <p><b>Skills</b></p> <ul style="list-style-type: none"> <li>- Graduates can identify opportunities for using / providing forest ecosystem goods and services in companies and derive their impact on companies.</li> <li>- Graduates are capable of critically examining existing forest cultivation strategies in terms of the provision/use of forest ecosystem goods and services.</li> <li>- Graduates can develop and implement company-specific management strategies for the cultivation of forest ecosystems with a focus on forest ecosystem goods and services.</li> <li>- Graduates are capable of identifying social needs and ecosystem limitations using concrete examples and of integrating them in approaches to forest ecosystem cultivation.</li> </ul> <p><b>Competencies</b></p> <ul style="list-style-type: none"> <li>- Graduates are enabled to work independently and in groups and can acquire or enlarge on their knowledge.</li> <li>- Graduates are capable to systematically analyse complex problems and generate solutions.</li> <li>- Graduates have pronounced communication skills.</li> </ul>	<p><b>Especially important for objectives:</b></p> <p>Future Management Systems I (M/6)</p> <p>Future Management Systems II (M/6)</p> <p>Resource Competition (M/6)</p> <p>Forest management strategies for ecosystem service provision I (M/6)</p> <p>Forest management strategies for ecosystem service provision II (M/6)</p> <p><b>Important for objectives:</b></p> <p>Rethinking environmental economics I (M/6)</p> <p>Rethinking environmental economics II (M/6)</p> <p>Forest governance and Policy I (M/6)</p> <p>Forest governance and Policy II (M/6)</p> <p>Transformation pioneers (M/6)</p> <p>Research project (M/24)</p> <p>Master thesis and defence (M/26)</p>

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Study and Examination Regulations *Forestry System Transformation (M.Sc.)* 2018/19

<p><b>Business consulting and development of strategies promoting innovation- and transformation-based approaches in the field of sustainable natural resource use.</b></p> <p>Graduates are capable of developing sustainability-based innovation and transformation processes for companies and enterprises at the local, national and international level, as well as recognising and strategically establishing new product potential.</p>	<p><b>Knowledge</b></p> <ul style="list-style-type: none"> <li>- Graduates have extensive knowledge of innovation concepts, types and processes as well as transformation strategies and sustainability management methods.</li> <li>- Graduates are aware of the opportunities and limitations associated with shaping innovation processes and spaces.</li> <li>- Graduates have an understanding of participative integration of stakeholders in innovation processes, cooperation within organisations and activities within the impact assessment and role reflection framework.</li> <li>- Graduates recognise the importance of sustainable development and the social and ethical responsibilities of individuals and organisations.</li> </ul> <p><b>Skills</b></p> <ul style="list-style-type: none"> <li>- Graduates have the skills to support incremental and structural processes of change in organisations.</li> <li>- Graduates can identify and analyse innovation potential on the basis of target-groups.</li> <li>- Graduates can communicate the need for transformation and act as presenters and conflict resolvers in the corporate strategy field.</li> <li>- Graduates can apply small and large group techniques and organise and evaluate social learning processes and stakeholder dialogue.</li> </ul> <p><b>Competencies</b></p> <ul style="list-style-type: none"> <li>- Graduates have the social skills necessary to act as change agents and change coaches in the corporate context.</li> <li>- Graduates are enabled to constructively introduce complex contents, uncertainty and risks arising from innovation processes and transformation approaches in organisations via a learning process.</li> </ul>	<p><b>Especially important for objectives:</b></p> <p>Rethinking environmental economics I (M/6)</p> <p>Rethinking environmental economics II (M/6)</p> <p>Socio-Technical System Transformation (M/6)</p> <p>Forest governance and Policy I (M/6)</p> <p>Forest governance and Policy II (M/6)</p> <p>Transformation and Innovation I (E/6)</p> <p>Transformation and Innovation II (E/6)</p> <p>Transformation pioneers (M/6)</p> <p><b>Important for objectives:</b></p> <p>Research project (M/24)</p> <p>Master thesis and defence (M/26)</p>
<p><b>Political consulting: Public institutions and administrations from the local to the international level</b></p> <p>Graduates acquire the skills to systemically record and evaluate forest ecosystem goods and services and their potential in public institutions and administrations (cities, ministries, EU) and integrate them into spatial policy development. This includes a particular focus on the creation of political framework conditions favourable to the sustainable provision of forest ecosystem goods and services.</p>	<p><b>Knowledge</b></p> <ul style="list-style-type: none"> <li>- Graduates have the expertise to recognise favourable/obstructive political and socio-economic framework conditions for the provision and use of (forest) ecosystem goods and services/bundles.</li> <li>- Graduates are aware of the importance of institutional design and of political cycle, policy development and impact assessment concepts.</li> </ul> <p><b>Skills</b></p> <ul style="list-style-type: none"> <li>- Graduates can communicate specifically with different target groups and act as presenters and conflict resolvers in the field of policymaking.</li> </ul> <p><b>Competencies</b></p> <ul style="list-style-type: none"> <li>- Graduates are able to constructively introduce complex contents, uncertainty and risks arising from political processes in public institutions and administrative bodies via a learning process.</li> </ul>	<p><b>Especially important for objectives:</b></p> <p>Forest governance and Policy I (M/6)</p> <p>Forest governance and Policy II (M/6)</p> <p>Rethinking environmental economics I (M/6)</p> <p>Rethinking environmental economics II (M/6)</p> <p>Socio-Technical System Transformation (M/6)</p> <p>Transformation and Innovation I (E/6)</p> <p>Transformation and Innovation II (E/6)</p> <p><b>Important for</b></p>

## Appendix 2: Diploma Supplement

Study and Examination Regulations *Forestry System Transformation* (M.Sc.) 2018/19

		<p><b>objectives:</b></p> <p>Resource Competition (M/6)</p> <p>Research project (M/24)</p> <p>Master thesis and defence (M/26)</p> <p>Transformation pioneers (M/6)</p>
<p><b>Academic work and PhD</b></p> <p>Graduates have the skills to conduct independent research at research institutions and other organisations to enhance their understanding of socio-ecological interdependencies and the role institutions and market instruments play in the control and use of natural resources.</p>	<p><b>Knowledge</b></p> <ul style="list-style-type: none"> <li>- Graduates have a deep and broad understanding of socio-ecological systems and their governance.</li> <li>- Graduates are aware of socio-economic instruments and assessment approaches in environmental and resource policy.</li> <li>- Graduates have gathered experience in the field of ecological, social science and integrated methods (integrated assessment).</li> </ul> <p><b>Skills</b></p> <ul style="list-style-type: none"> <li>- Graduates have the necessary faculty of judgment to assess the pros and cons of existing methods and control instruments associated with the use of natural resources.</li> <li>- Graduates have the ability to communicate concepts to academic and non-academic audiences in a coherent and concise manner.</li> <li>- Graduates have acquired basic knowledge of empirical social research and ecological modelling and can critically assess the results.</li> </ul> <p><b>Competencies</b></p> <ul style="list-style-type: none"> <li>- Graduates are enabled to collect and process evidence-based as well as normative information on the use of natural resources.</li> <li>- Graduates are capable of supporting colleagues and assistants in their academic work and research.</li> </ul>	<p><b>Especially important for objectives:</b></p> <p>Research project (M/24)</p> <p>Master thesis and defence (M/26)</p> <p>Master thesis colloquium (M/4)</p> <p><b>Important for objectives:</b></p> <p>Forest governance and Policy II (M/6)</p> <p>Resource Competition (M/6)</p>

### 4.3 Study Programme Details

#### 4.3 Study programme details

Structure of the study programme

Students complete this four-semester Master's degree course with 120 ECTS credits (30 credits per semester) and the internationally recognised academic degree of "Master of Science" (M.Sc.). The design of the study programme, i.e. the sequence of mandatory and elective modules, is based on the following consecutive basic structure:

- 1st and 2nd semester: Theoretical study semester (students study the ecological governance- and ecological economy-based forest, natural and social science principles and system theory basics necessary to conduct socio-economic analysis and acquire an understanding of the interaction between forest and society).
- 3rd semester: Practical study semester (independent research project at HNEE or selected institutions in Germany or abroad accompanied by an internet-based research colloquium)
- 4th semester: Theoretical study semester (master thesis and summary master colloquium).

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### **4.4 Grading Schemes and Notes on the Award of Grades**

The grading system corresponds to the standards of the European Credit transfer System (ECTS).

### **4.5 Overall Grade**

The overall grade of the master examination is calculated as the average grade based on the weighted individual module grades. The weighting corresponds to the award of credit points. The credit points awarded for the practical study semester are not included in the calculation of the overall grade.

## Appendix 2: Diploma Supplement

Study and Examination Regulations *Forestry System Transformation* (M.Sc.) 2018/19

# 5 Details on the Qualification Status

## 5.1 Access to Further Studies

The degree qualifies to apply for admission to a doctorate (doctoral thesis).

## 5.2 Professional Status

The Master of Science degree certificate entitles the holder to use the legally protected professional title of „Master of Science“.

# 6 Additional Information

## 6.1 Additional Information

The academic centre of Eberswalde has a tradition in forest research and scientific teaching since 1830.

## 6.2 Further Information Source

<http://www.hnee.de>

# 7 Certification

This Diploma Supplement refers to the following original documents:

Degree Certificate

Transcript of Records

Certification date:

(Official stamp)

Chairman of the examining board



# Information on the German Higher Education System<sup>1</sup>

## 8.1 Types of Institutions and Institutional Status

Higher education (HE) studies in Germany are offered at three types of Higher Education Institutions (HEI).<sup>2</sup>

- Universitäten (Universities) including various specialized institutions, offer the whole range of academic disciplines. In the German tradition, universities focus in particular on basic research so that advanced stages of study have mainly theoretical orientation and research-oriented components.

- Fachhochschulen (Universities of Applied Sciences) concentrate their study programmes in engineering and other technical disciplines, business-related studies, social work, and design areas. The common mission of applied research and development implies an application-oriented focus of studies, which includes integrated and supervised work assignments in industry, enterprises or other relevant institutions.

- Kunst- und Musikhochschulen (Universities of Art/Music) offer studies for artistic careers in fine arts, performing arts and music; in such fields as directing, production, writing in theatre, film, and other media; and in a variety of design areas, architecture, media and communication.

Higher Education Institutions are either state or state-recognized institutions. In their operations, including the organization of studies and the designation and award of degrees, they are both subject to higher education legislation.

## 8.2 Types of Programmes and Degrees Awarded

Studies in all three types of institutions have traditionally been offered in integrated "long" (one-tier) programmes leading to Diplom- or Magister Artium degrees or completed by a Staatsprüfung (State Examination).

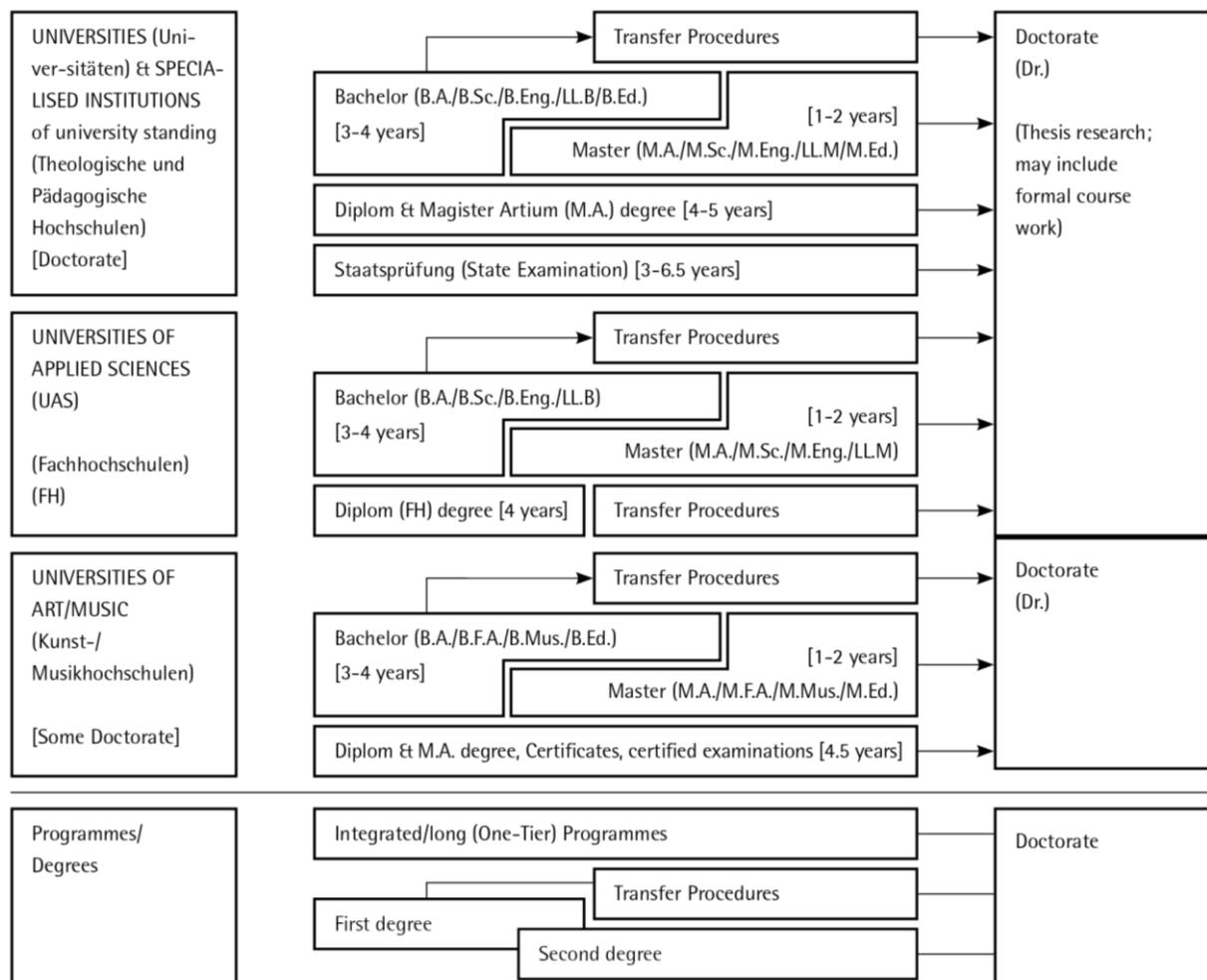
Within the framework of the Bologna-Process one-tier study programmes are successively being replaced by a two-tier study system. Since 1998, two-tier degrees (Bachelor and Master) have been introduced in almost all study programmes. This change is designed to provide enlarged variety and flexibility to students in planning and pursuing educational objectives, they also enhance international compatibility of studies.

The German Qualifications Framework for Higher Education Degrees<sup>3</sup>, the German Qualifications Framework for Lifelong Learning<sup>4</sup> and the European Qualifications Framework for Lifelong Learning<sup>5</sup> describe the degrees of the German Higher Education System. They contain the classification of the qualification levels as well as the resulting qualifications and competencies of the graduates.

For details cf. Sec. 8.4.1, 8.4.2, and 8.4.3 respectively. Table 1 provides a synoptic summary.

## Appendix 2: Diploma Supplement

### Study and Examination Regulations *Forestry System Transformation (M.Sc.) 2018/19*



### 8.3 Approval/Accreditation of Programmes and Degrees

To ensure quality and comparability of qualifications, the organization of studies and general degree requirements have to conform to principles and regulations established by the Standing Conference of the Ministers of Education and Cultural Affairs of the Länder in the Federal Republic of Germany (KMK).<sup>6</sup> In 1999, a system of accreditation for programmes of study has become operational under the control of an Accreditation Council at national level. All new programmes have to be accredited under this scheme; after a successful accreditation they receive the quality-label of the Accreditation Council.<sup>7</sup>

### 8.4 Organization and Structure of Studies

The following programmes apply to all three types of institutions. Bachelor's and Master's study courses may be studied consecutively, at various higher education institutions, at different types of higher education institutions and with phases of professional work between the first and the second qualification. The organization of the study programmes makes use of modular components and of the European Credit Transfer and Accumulation System (ECTS) with 30 credits corresponding to one semester.

#### 8.4.1 Bachelor

Bachelor degree study programmes lay the academic foundations, provide methodological skills and lead to qualifications related to the professional field. The Bachelor degree is awarded after 3 to 4 years.

The Bachelor degree programme includes a thesis requirement. Study courses leading to the Bachelor degree must be accredited according to the Law establishing a Foundation for the Accreditation of Study Programmes in Germany.<sup>8</sup>

First degree programmes (Bachelor) lead to Bachelor of Arts (B.A.), Bachelor of Science (B.Sc.), Bachelor of Engineering (B.Eng.), Bachelor of Laws (LL.B.), Bachelor of Fine Arts (B.F.A.), Bachelor of Music (B.Mus.) or Bachelor of Education (B.Ed.).

The Bachelor degree corresponds to level 6 of the German Qualifications Framework/ European Qualifications Framework.

#### 8.4.2 Master

Master is the second degree after another 1 to 2 years. Master study programmes may be differentiated by the profile types "practice-oriented" and "research-oriented". Higher Education Institutions define the profile.

The Master degree study programme includes a thesis requirement. Study programmes leading to the Master degree must be accredited

## Appendix 2: Diploma Supplement

### Study and Examination Regulations *Forestry System Transformation (M.Sc.) 2018/19*

according to the Law establishing a Foundation for the Accreditation of Study Programmes in Germany.<sup>9</sup>

Second degree programmes (Master) lead to Master of Arts (M.A.), Master of Science (M.Sc.), Master of Engineering (M.Eng.), Master of Laws (L.L.M.), Master of Fine Arts (M.F.A.), Master of Music (M.Mus.) or Master of Education (M.Ed.). Master study programmes which are designed for continuing education may carry other designations (e.g. MBA).

The Master degree corresponds to level 7 of the German Qualifications Framework/ European Qualifications Framework.

#### **8.4.3 Integrated „Long“ Programmes (One-Tier): Diplom Degrees, Magister Artium, Staatsprüfung**

An integrated study programme is either mono-disciplinary (Diplom degrees, most programmes completed by a Staatsprüfung) or comprises a combination of either two major or one major and two minor fields (Magister Artium). The first stage (1.5 to 2 years) focuses on broad orientations and foundations of the field(s) of study. An Intermediate Examination (Diplom-Vorprüfung for Diplom degrees; Zwischenprüfung or credit requirements for the Magister Artium) is prerequisite to enter the second stage of advanced studies and specializations. Degree requirements include submission of a thesis (up to 6 months duration) and comprehensive final written and oral examinations. Similar regulations apply to studies leading to a Staatsprüfung. The level of qualification is equivalent to the Master level.

- Integrated studies at Universitäten (U) last 4 to 5 years (Diplom degree, Magister Artium) or 3 to 6.5 years (Staatsprüfung). The Diplom degree is awarded in engineering disciplines, the natural sciences as well as economics and business. In the humanities, the corresponding degree is usually the Magister Artium (M.A.). In the social sciences, the practice varies as a matter of institutional traditions. Studies preparing for the legal, medical and pharmaceutical professions are completed by a Staatsprüfung. This applies also to studies preparing for teaching professions of some Länder.

The three qualifications (Diplom, Magister Artium and Staatsprüfung) are academically equivalent and correspond to level 7 of the German Qualifications Framework/ European Qualifications Framework.

They qualify to apply for admission to doctoral studies. Further prerequisites for admission may be defined by the Higher Education Institution, cf. Sec. 8.5.

- Integrated studies at Fachhochschulen (FH)/Universities of Applied Sciences (UAS) last 4 years and lead to a Diplom (FH) degree which corresponds to level 6 of the German Qualifications Framework/ European Qualifications Framework.

While the FH/UAS are non-doctorate granting institutions, qualified graduates may apply for admission to doctoral studies at doctorate-granting institutions, cf. Sec. 8.5.

- Studies at Kunst- and Musikhochschulen (Universities of Art/Music etc.) are more diverse in their organization, depending on the field and individual objectives. In addition to Diplom/Magister degrees, the integrated study programme awards include Certificates and certified examinations for specialized areas and professional purposes.

## **8.5 Doctorate**

Universities as well as specialized institutions of university standing and some Universities of Art/Music are doctorate-granting institutions. Formal prerequisite for admission to doctoral work is a qualified Master (UAS and U), a Magister degree, a Diplom, a Staatsprüfung, or a foreign equivalent. Comparable degrees from universities of art and music can in exceptional cases (study programmes such as music theory, musicology, pedagogy of arts and music, media studies) also formally qualify for doctoral work. Particularly qualified holders of a Bachelor or a Diplom (FH) degree may also be admitted to doctoral studies without acquisition of a further degree by means of a procedure to determine their aptitude. The universities respectively the doctorate-granting institutions regulate entry to a doctorate as well as the structure of the procedure to determine aptitude. Admission further requires the acceptance of the Dissertation research project by a professor as a supervisor.

The doctoral degree corresponds to level 8 of the German Qualifications Framework/ European Qualifications Framework.

## **8.6 Grading Scheme**

The grading scheme in Germany usually comprises five levels (with numerical equivalents; intermediate grades may be given): "Sehr Gut" (1) = Very Good; "Gut" (2) = Good; "Befriedigend" (3) = Satisfactory; "Ausreichend" (4) = Sufficient; "Nicht ausreichend" (5) = Non-Sufficient/Fail. The minimum passing grade is "Ausreichend" (4). Verbal designations of grades may vary in some cases and for doctoral degrees.

In addition, grade distribution tables as described in the ECTS Users' Guide are used to indicate the relative distribution of grades within a reference group.

## **8.7 Access to Higher Education**

The General Higher Education Entrance Qualification (Allgemeine Hochschulreife, Abitur) after 12 to 13 years of schooling allows for admission to all higher educational studies. Specialized variants (Fachgebundene Hochschulreife) allow for admission at Fachhochschulen (UAS), universities and equivalent higher education institutions, but only in particular disciplines. Access to study programmes at Fachhochschulen (UAS) is also possible with a Fachhochschulreife, which can usually be acquired after 12 years of schooling. Admission to study programmes at Universities of Art/Music and comparable study programmes at other higher education institutions as well as admission to a study programme in sports may be based on other or additional evidence demonstrating individual

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### Study and Examination Regulations *Forestry System Transformation* (M.Sc.) 2018/19

aptitude.

Applicants with a vocational qualification but without a school-based higher education entrance qualification are entitled to a general higher education entrance qualification and thus to access to all study programmes, provided they have obtained advanced further training certificates in particular state-regulated vocational fields (e.g. Meister/Meisterin im Handwerk, Industriemeister/in, Fachwirt/in (IHK und HWK), staatlich geprüfte/r Betriebswirt/in, staatliche geprüfte/r Gestalter/in, staatlich geprüfte/r Erzieher/in). Vocationally qualified applicants can obtain a Fachgebundene Hochschulreife after completing a state-regulated vocational education of at least two years' duration plus professional practice of normally at least three years' duration, after having successfully passed an aptitude test at a higher education institution or other state institution; the aptitude test may be replaced by successfully completed trial studies of at least one year's duration.<sup>10</sup>

Higher Education Institutions may in certain cases apply additional admission procedures.

#### 8.8 National Sources of Information

- Kultusministerkonferenz (KMK) [Standing Conference of the Ministers of Education and Cultural Affairs of the Länder in the Federal Republic of Germany]; Graurheindorfer Str. 157, D-53117 Bonn;

Fax: +49[0]228/501-777; Phone: +49[0]228/501-0

- Central Office for Foreign Education (ZaB) as German NARIC; www.kmk.org; E-Mail: zab@kmk.org

- "Documentation and Educational Information Service" as German EURYDICE-Unit, providing the national dossier on the education system (<http://www.kmk.org/dokumentation/zusammenarbeit-auf-europaeischer-ebene-im-eurydice-informationsnetz.html>);

E-Mail: eurydice@kmk.org)

- Hochschulrektorenkonferenz (HRK) [German Rectors' Conference]; Ahrstrasse 39, D-53175 Bonn; Fax: +49[0]228/887-110; Phone: +49[0]228/887-0; www.hrk.de; E-Mail: post@hrk.de

- "Higher Education Compass" of the German Rectors' Conference features comprehensive information on institutions, programmes of study, etc. ([www.higher-education-compass.de](http://www.higher-education-compass.de))

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<sup>1</sup> The information covers only aspects directly relevant to purposes of the Diploma Supplement. All information as of January 2015.

<sup>2</sup> Berufsakademien are not considered as Higher Education Institutions, they only exist in some of the Länder. They offer educational programmes in close cooperation with private companies. Students receive a formal degree and carry out an apprenticeship at the company. Some Berufsakademien offer Bachelor courses which are recognized as an academic degree if they are accredited by a German accreditation agency.

<sup>3</sup> German Qualifications Framework for Higher Education Degrees. (Resolution of the Standing Conference of the Ministers of Education and Cultural Affairs of the Länder in the Federal Republic of Germany of 21 April 2005).

<sup>4</sup> German Qualifications Framework for Lifelong Learning (DQR). Joint resolution of the Standing Conference of the Ministers of Education and Cultural Affairs of the Länder in the Federal Republic of Germany, the German Federal Ministry of Education and Research, the German Conference of Economics Ministers and the German Federal Ministry of Economics and Technology (Resolution of the Standing Conference of the Ministers of Education and Cultural Affairs of the Länder in the Federal Republic of Germany of 15 November 2012). More information at [www.dqr.de](http://www.dqr.de)

<sup>5</sup> Recommendation of the European Parliament and the European Council on the establishment of a European Qualifications Framework for Lifelong Learning of 23 April 2008 (2008/C 111/01 – European Qualifications Framework for Lifelong Learning – EQF).

<sup>6</sup> Common structural guidelines of the Länder for the accreditation of Bachelor's and Master's study courses (Resolution of the Standing Conference of the Ministers of Education and Cultural Affairs of the Länder in the Federal Republic of Germany of 10.10.2003, as amended on 04.02.2010).

<sup>7</sup> "Law establishing a Foundation 'Foundation for the Accreditation of Study Programmes in Germany'", entered into force as from 26 February 2005, GV. NRW. 2005, No. 5, p. 45 in connection with the Declaration of the Länder to the Foundation "Foundation for the Accreditation of Study Programmes in Germany" (Resolution of the Standing Conference of the Ministers of Education and Cultural Affairs of the Länder in the Federal Republic of Germany of 16 December 2004).

<sup>8</sup> See note No. 7.

<sup>9</sup> See note No. 7.

<sup>10</sup> Access to higher education for applicants with a vocational qualification, but without a school-based higher education entrance qualification (Resolution of the Standing Conference of the Ministers of Education and Cultural Affairs of the Länder in the Federal Republic of Germany of 6 March 2009).

### **Appendix 3: Recognition of language certificates**

Study and Examination Regulation *Forestry System Transformation* (M.Sc.) 2018

A good level of English according to the Common European Framework of Reference for Languages (CEFR) at least level B2 is required for admission.

The following certificates are recognised as equivalent:

#### **CEFR** (Common European Framework)

- CEFR level B2 and above

#### **TOEFL** (Test of English as Foreign Language)

- PBT = 543 points
- ITP = 543 points
- iBT = 72 points

#### **TOEIC** (Test of English for International Communication)

- TOEIC Listening & Reading = Listening 400 points; Writing 385 points
- TOEIC Speaking & Writing = Speaking 160 points; Writing 150 points

#### **LCCIEB** (London Chamber of Commerce and Industry)

- Level 2 = Pass with Credit or Pass with Distinction or above

#### **Unicert**

- Unicert II or above

#### **IELTS** (International English Language Testing System)

- IELTS = 6 points

#### **BEC** (Business English Certificates)

- BEC Vantage or above

#### **CPE** (Cambridge Certificate of Proficiency in English)

- CPE = 160 points

**Important:** Only the European Reference Framework with level B2 is binding! Since the certificates are subject to constant change, the above mentioned scores may vary in individual cases and are therefore only intended as a guide.

The decision on the recognition of the above-mentioned and possibly other equivalent certificates is made by the Language Centre in consultation with the Student Services Department and the head of the study programme.

#### **Appendix 4: List of countries with English as an official language**

Study and Examination Regulation *Forestry System Transformation* (M.Sc.) 2018

#### **List of countries with English as an official language**

Applicants from countries listed below do not have to supply evidence (TOEFL, etc.) about their knowledge of English:

Antigua	Namibia
Bahamas	Nauru
Barbados	New Zealand
Bhutan	Nigeria
Canada	Seychelles
Cook Islands	Sierra Leone
Ghana	Singapore
Great Britain	St. Kitts and Nevis
Grenada	St. Lucia
Ireland	St. Vincent and Grenadine
Lesotho	South Africa
Malawi	Swaziland
Malta	Trinidad and Tobago
Marshall	USA
Mauritius	Zambia
Micronesia	Zimbabwe