

### **Faculty of Forestry Sciences and Forest Ecology:**

Following the resolution of the Faculty Council of the Faculty of Forest Sciences and Forest Ecology of 03.05.2011 and the policy brief of the Senate of 06.07.2011, the Presidential Board of the Georg-August-Universität Göttingen has approved the Study and Examination Regulations on dd.mm.2011 for the Bachelor's Programme in "Molecular Ecosystem Sciences" (§ 44 section 1 line 2 Higher Education Act of Lower Saxony (NHG) as amended by the bulletin of 26.02.2007 (Lower Saxony Law and Ordinance Gazette, p. 69), most recently changed by Article 1 of the Law of 29.06.2011 (Lower Saxony Law and Ordinance Gazette, p. 202); §§ 41 sec. 2 line 2, 37 sec. 1 line 3 no. 5b), 44 section 1 line 3 Higher Education Act of Lower Saxony (NHG).

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***This translation is provided solely as a courtesy to international students and applicants. Reliance in law may only be placed upon the official German version of these Regulations.***

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## **Study and Examination Regulations for the Bachelor's Programme in "Molecular Ecosystem Sciences" of the Georg-August-Universität Göttingen**

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## **§ 1 Scope, Purpose of the Programme, Academic Degree**

(1) The valid version of the provisions of the "General examination regulations for Bachelor's and Master's programmes as well as other courses and degrees offered at the University of Göttingen" (APO) apply respectively to the Bachelor's programme in "Molecular Ecosystem Sciences" at the Georg-August-Universität Göttingen. The current order regulates the supplementary specific provisions for this degree programme.

(2) The programme with the degree "Bachelor of Science" (abbreviated "B.Sc.") paves the way to work as a bio-scientist, with focus on public and private environmental laboratories of administrations, companies, research facilities and international organisations. With the Bachelor degree examination, it is assessed whether the candidate has learnt the most important scientific facts and methods and acquired an understanding for the correlations, the basics of practical knowledge and the capacity to apply this knowledge to solve practical tasks, to be able to work in the fields of molecular biosciences and ecology.

## **§ 2 Programme breakdown; modules; language of instruction and examination**

(1) The programme starts with the winter semester. The degree programme cannot be studied part-time. The language of instruction and examination is English.

(2) The academic programme comprises 180 credits (ECTS credits; abbreviated as: C) that are distributed as follows:

- a) Specialist skills (specialist course) 114 C,
- b) Area of professionalization (including key competencies) 54 C,
- c) Bachelor thesis 12 C.

(3) Number, type and scope of the modules to be successfully completed are governed by the module overview (appendix 1). For recommendation on the academic programme structure, please refer to the enclosed sample curriculum (appendix 2). Module catalogue and module handbook are published separately in a common electronic version (digital module directory); they are part of this order, as far as the modules are itemised in the module overview (appendix 1).

(4) Examination results should be produced both in compulsory and optional modules. The optional modules facilitate individualised structuring of the academic programme. Modules other than those listed in the module overview (alternative modules) can be chosen in the optional area, according to the prerequisite of the following provisions. Prerequisites for the consideration of an alternative module are:

- a) A written application to be handed in by the student to the Dean of Studies of Forest Sciences and Forest Ecology before choosing the alternative module;
- b) Approval by the Dean of Studies or Course Module offering the alternative module.

The decision on approving the application is made by the Dean of Studies of Forest Sciences and Forest Ecology. The Dean will obtain the opinion of the degree programme tutors on the usefulness of the module replacement before reaching the decision. The application can be rejected without stating any reasons; a legal right of the applicant to object the decision does not exist.

(5) The conversion of a module, which is completed successfully in the form of a voluntary additional exam, to a normally credited module and vice versa, is possible only in the optional area.

### **§ 3 Study Abroad**

Students may complete part of the study abroad. The 4<sup>th</sup> subject semester is best suited for this. Credits earned abroad will be accredited within the framework of the general examination regulations for Bachelor's and Master's programmes and other courses and degrees offered at the University of Gottingen (APO). In this regard, it is strongly recommended to conclude a "learning agreement" before going abroad to study. The "learning agreement" regulates the compulsory subjects and examinations, which are offered by the foreign university and accredited as part of this programme after successful completion. The learning agreement may include only those subjects and examinations, which:

- a) Correspond essentially to the qualification standard of a bachelor's programme,
- b) Correspond to the qualification objectives of this bachelor's programme and
- c) Are not part of a module exam that has been or yet to be completed as part of this degree programme before starting the study abroad.

The Dean of Studies shall decide on the "learning agreement".

### **§ 4 Examination guidelines**

The duration of the exams depends on the workload demanded (calculated according to the number of credits), wherein following values should be kept:

For < 6 C	<i>Written exam</i>	¾ - 1½ h
	<i>Oral examination</i>	15 min.
	<i>Project work, term paper</i>	Processing time: 2 weeks, length: approx. 10 pages
	<i>Oral presentation with written outline and written report</i>	approx. 10 min. (approx. 10 pages)
For 6-9 C	<i>Written exam</i>	1½ - 2 h
	<i>Oral examination</i>	15 - 30 min.
	<i>Project work, term paper</i>	Time: 2 - 4 weeks, length: 10 - 20 pages
	<i>Oral presentation with written outline and written report</i>	10 - 20 min. (10 - 20 pages)
For > 9 C	<i>Written exam</i>	2 - 3 h
	<i>Oral examination</i>	15 - 45 min.
	<i>Project work, term paper</i>	Time: 3 - 6 weeks, length: 20 - 30 pages
	<i>Oral presentation with written outline and written report</i>	20 - 30 min. (20 - 30 pages)

The specified duration of an oral examination can be exceeded or fall short to a reasonable degree.

### **§ 5 Exam Registration and Withdrawal Deadlines**

(1) For each semester, the Examination Board stipulates an assessment period that normally lasts for six weeks and follows the period of lecture. Examination dates can be fixed outside of the assessment period under line 1; this is decided by the Dean of Studies upon application of the examinee.

(2) The dates of the module tests are specified by the Examination Office after hearing the examinee and are supposed to be announced at the latest six weeks before the module test in the electronic examination management system.

(3) The registration for a module test is done electronically seven days before the examination date. Pulling out from an exam without stating the reasons (withdrawal) is possible seven days before the examination date; a day before the examination date for written exams.

### **§ 6 Reassessment Guidelines**

(1) A passed module test that was completed at the latest by the semester specified in the curriculum (appendix 2) may be repeated once for improving the grade. Reassessment does not lead to any devaluation of the grade. Reassessment for improving the grade is possible only on the upcoming examination date of the corresponding module.

(2) As many minus points as ECTS credits that can be acquired from the corresponding module or part module are awarded for a failed module test or part module test of a compulsory module.

(3) Reassessment is not allowed, as soon as the case of the § 9 section 1 comes into effect.

### **§ 7 Bachelor Thesis**

(1) With the written bachelor thesis, the candidate should prove that he or she is in a position to process a problem using the standard methods of the subject in the specified timeframe, develop an independent, scientifically established judgement, arrive at scientifically underpinned statements and illustrate the results in a linguistically as well as formally appropriate manner.

(2) The provisional working topic of the bachelor thesis should be agreed with the academic advisor or submitted with a confirmation of the second advisor of the concerned Examination Board. In the event of the candidate not finding an academic advisor, the concerned Examination Board will specify an academic advisor and a topic. The candidate's view should be considered in choosing the topic. The right to suggest the topic does not entitle any legal right. The approval of the topic for the bachelor thesis is done by the Examination Office. The time of approval should be recorded.

(3) The time allotted for completing the bachelor thesis is 9 weeks. Upon application of the candidate, the Examination Board can extend the deadline for submitting the thesis by a maximum of 4 weeks, upon agreement with the academic advisor and existence of an important reason that cannot be attributed to the candidate.

(4) The topic can be returned only once and only within the first 4 weeks of the time allotted for completing the thesis. A new topic should be promptly agreed, at the latest within 4 weeks. In the case of redoing the bachelor thesis, the topic may be returned only if the examinee has not resorted to this option in the first submission of the bachelor thesis.

(5) The bachelor thesis should be submitted as three identical glue-bound copies to the Examination Office within the specified deadline. The time of submission should be recorded. The bachelor thesis should also be submitted as a soft copy according to more specific regulation of the Examination Board. While submitting, the candidate should declare in writing that he or she has independently compiled the work or - in case of group work - the correspondingly marked proportion of the work and has not used any sources and tools other than those specified.

(6) The Examination Office forwards the bachelor thesis to the academic advisor and the second advisor as a reviewer. Each reviewer gives a grade. The duration of the application procedure should not exceed 4 weeks.

### **§ 8 Examination Board**

The Examination Board comprises of seven members eligible to vote, including four members of the professorial group, a member of the staff and two members of the students' union. At the same time, a representative is nominated for each member. If a member or a representative steps down prematurely, a substitute member will be nominated for the remaining tenure.

### **§ 9 Definitive Failing of the Bachelor Degree Examination; Award**

(1) Besides the cases mentioned in the APO, the right to take an examination is categorically annulled if the number of the minus points out of the module tests or part module tests exceeds 60.

(2) The title "with honours" is awarded for a grade point average up to 1.3 and noted on the certificate and the degree certificate.

### **§10 Entry into Force**

This regulation enters into force the day after its promulgation in the official announcements of Georg-August-Universität Göttingen.

## Annex 1 Module Overview

Modules with a rating of 180 credits should be successfully completed.

### a. Specialist course (114 C)

The following 19 modules with a rating of 114 credits should be successfully completed:

B.MES.101	Molecular plant and stress physiology	(6 C / 4 SWS)
B.MES.102	Chemical ecology	(6 C / 4 SWS)
B.MES.103	Ecological genetics	(6 C / 4 SWS)
B.MES.104	Biotic and abiotic interactions	(6 C / 4 SWS)
B.MES.106	Microbiology and molecular biology	(6 C / 4 SWS)
B.MES.107	Ecological modelling	(6 C / 4 SWS)
B.MES.108	Computer sciences and mathematics	(6 C / 4 SWS)
B.MES.109	Plant ecology and diversity	(6 C / 4 SWS)
B.MES.111	Terrestrial biogeochemistry	(6 C / 4 SWS)
B.MES.112	Environmentally friendly production of wood	(6 C / 4 SWS)
B.MES.113	Methods in systems biology	(6 C / 4 SWS)
B.MES.114	Biodiversity of pro- and eukaryotic soil microbial communities	(6 C / 4 SWS)
B.MES.116	Conservation and ecosystem management	(6 C / 4 SWS)
B.MES.117	Atmosphere-ecosystem interactions	(6 C / 4 SWS)
B.MES.118	Resource assessment in ecosystems	(6 C / 4 SWS)
B.MES.119	Isotopes in ecosystem sciences	(6 C / 4 SWS)
B.MES.121	Global change	(6 C / 4 SWS)
B.MES.122	Molecular soil ecology	(6 C / 4 SWS)
B.MES.123	Project	(6 C / 4 SWS)

### b. Area of professionalization (54 C)

Modules with a rating of 54 credits should be successfully completed according to the prerequisite of the following provisions.

#### ba. Key competencies

The following four modules with a rating of 24 credits should be successfully completed.

B.MES-SK.105	Laboratory techniques	(6 C / 4 SWS)
B.MES-SK.110	The science-policy interface: Society and research structures	(6 C / 4 SWS)
B.MES-SK.115	Scientific methods and project design	(6 C / 4 SWS)
SK.FS.E-FF-C1-1	Scientific writing in English	(6 C / 4 SWS)

**bb. Optional area**

Modules with a rating of 30 credits should be successfully completed. The modules mentioned in the following can also be replaced by alternative modules in the sense of § 2 section 4 Study and Examination Regulations. A module may also be another key competency module offered by other departments of the university.

B.MES.301	Special topics in plant methods and ecological applications I	(6 C / 4 SWS)
B.MES.302	Special topics in plant methods and ecological applications II	(6 C / 4 SWS)
B.MES.303	Semiochemical diversity	(6 C / 4 SWS)
B.MES.304	Protection of renewable resources	(6 C / 4 SWS)
B.MES.305	Conservation of biodiversity	(6 C / 4 SWS)
B.MES.306	Intraspecific diversity of plants	(6 C / 4 SWS)

**c. Bachelor thesis (12 C)**

12 credits are awarded for successful completion of the bachelor thesis.

## Annex 2 Sample curriculum

Sem. Σ C	Module				
1. Sem. Σ 30	B.MES.101: Molecular plant and stress physiology 6 C	B.MES.102: Chemical ecology 6 C	B.MES.103: Ecological genetics 6 C	B.MES.104: Biotic and abiotic interactions 6 C	B.MES-SK.105: Laboratory techniques 6 C
2. Sem. Σ 30	B.MES.106: Microbiology and molecular biology 6 C	B.MES.107: Ecological modeling 6 C	B.MES.108: Computer sciences and mathematics 6 C	B.MES.109: Plant ecology and diversity 6 C	B.MES-SK.110: The science- policy interface: Society and research structures 6 C
3. Sem. Σ 30	B.MES.111: Terrestrial biogeochemistry 6 C	B.MES.112: Environmentally friendly production of wood 6 C	B.MES.113: Methods in systems biology 6 C	B.MES.114: Biodiversity of pro- and eukaryotic soil microbial communities 6 C	B.MES-SK.115: Scientific methods and project design 6 C
4. Sem. Σ 30	Wahl 6 C	Wahl 6 C	Wahl 6 C	Wahl 6 C	Wahl 6 C
5. Sem. Σ 30	B.MES.116: Conservation and ecosystem management 6 C	B.MES.117: Atmosphere- ecosystem interactions 6 C	B.MES.118: Resource assessment in ecosystems 6 C	B.MES.119: Isotopes in ecosystem sciences 6 C	SK.FS.E-FF-C1-1: Scientific writing in English 6 C
6. Sem. Σ 30	B.MES.121: Global change 6 C	B.MES.122: Molecular soil ecology 6 C	B.MES.123: Project 6 C	Bachelorarbeit 12 C	
Σ 180 C					