

English translation from the German. The translation is for information only; legally binding is only the German original in its currently applicable version published in the journal of legal notices of the Friedrich Schiller University, the *Verkündungsblatt*.

**Study Regulations
of the Faculty of Biology and Pharmacy
for the Study Programme 'Evolution, Ecology and Systematics'
Seeking the Degree 'Master of Science' (M.Sc.)**

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§ 1 Scope and Application

Based on the corresponding Examination Regulations in their applicable version, these Study Regulations establish objectives, content, and structure of the research-oriented, consecutive study programme 'Evolution, Ecology and Systematics' leading to a Master of Science degree (abbreviation: M.Sc.).

§ 2 Admission requirements

(1) In principle, the holder of a German Bachelor of Science degree or another equivalent undergraduate degree in biology is entitled to admission to the Masters programme 'Evolution, Ecology and Systematics'. However, admission is determined by selection criteria taking into account the final grade and application letter.

(2) Applicants holding a degree in another field of natural sciences from the Friedrich Schiller University Jena or another university or institution of higher education of equivalent status in Germany or abroad are admitted if their degree is equivalent to the Bachelor of Science in biology. Equivalence is ascertained by the Examinations Committee on a case-by-case basis. For the assessment, the content of the respective study programme, the grades received, the duration of the study programme, the personal development of the candidate, his/her motivation, and where applicable additional activities are taken into account. Provisional admission with certain conditions is possible in exceptional cases.

(3) By the stipulated deadline, the following application papers have to be submitted, if requested in authenticated copy:

- a) proof of the successful completion of an academic degree and detailed documentation of assessed and non-assessed coursework and examinations in the framework of the first university degree qualifying the graduate to work in his/her profession;
- b) where applicable, proof of academic achievements (academic or scientific papers, publications, research work, research and study periods spent abroad);
- c) where applicable, proof of relevant professional work experience.

(4) The Examinations Committee makes its selection according to the following criteria in the following order of priority: 1. final grade, 2. academic achievements, 3. motivation, 4. practical experience.

(5) Proficiency in English is required for the successful completion of this study programme.

§ 3 Duration of Study

(1) The standard duration of study is two years, including the time for writing a Master thesis.

(2) For part-time students, the standard duration of study is four years. Admission to part-time studies requires approval by the Faculty of Biology and Pharmacy.

§ 4

Beginning of Study Programme

The Masters programme 'Evolution, Ecology and Systematics' begins in the winter semester.

§ 5

Objectives of the Study Programme

(1) Building on the knowledge of biological systems that have been acquired in a Bachelors programme, the objective of the Masters programme 'Evolution, Ecology and Systematics' is to significantly broaden the knowledge of evolutionary processes on different organizational levels from the individual to entire ecosystems, and to specialize in one of the following areas: systematic zoology, systematic botany, or ecology. By studying the theoretical foundations and methodological approaches, students are enabled, to explore—in their specific field of expertise—the importance of evolution for the development of fundamental and global patterns, and to independently work on scientific foundations and their practical application.

(2) The Masters programme features a large proportion of independent work in seminars and practical courses. In systematic zoology and botany, the modern analysis of systems as direct illustration of evolutionary processes is paramount. In Ecology, the focus is placed on the analysis of highly complex systems on the level of populations, metapopulations, and ecosystems. Amongst the key skills taught are the independent conceptualization and execution of scientific studies as well as the written and oral presentation and documentation of scientific findings (notably in English).

(3) The experimental approach of the study programme is designed to be consecutive and research-oriented, and will lead to a second university degree qualifying graduates to work in their profession. In addition to subject-specific scientific techniques and skills, graduates will have acquired the communication skills necessary to publicly present the results of scientific research. The option to study abroad for one semester offers candidates the opportunity to gain international experience. The Masters programme qualifies graduates particularly for an academic career and is a prerequisite for subsequently pursuing a doctoral degree in the areas of zoology, botany, systematics, ecology, evolutionary biology, and functional biodiversity research at the Friedrich Schiller University or other universities inside or outside of Germany. Graduates will be equipped for scientific work in highly relevant professions of organismal biology.

§ 6

Structure of the Study Programme

(1) The study programme is composed of modules. Individual modules may be comprised of various combinations of lectures, seminars, practical courses, internships, field work, excursions, project work, tutorials, labs, colloquia, independent study times, and examinations. Each module is a learning and examination unit. One single module normally takes one semester or one full year of study.

(2) To successfully complete the study programme, students must acquire a total of 120 credit points according to the European Credit Transfer and Accumulation System (ECTS). Per year of study, a total of 60 ECTS has to be earned.

(4) The study programme concludes with submitting a Master thesis. By independently writing this scientific paper, the candidate proves that he/she is able to independently work on topic from a subfield of organismal or evolutionary biology using scientific methods and within a given time frame.

§ 7

Scope and Content of the Study Programme

(1) The modules of the first year of study bring together previously acquired skills and knowledge, prepare students for independent work on projects, and teach them to present scientific findings. In the first year of study, student have to attend two interdisciplinary basic modules (compulsory) earning a total of 20 ECTS:

- Evolutionary Theory (10 ECTS)
- Evolutionary Biology (10 ECTS)

In addition, advanced modules (required elective modules) earning a total of 40 ECTS from the three areas of specialization Systematic zoology, Biodiversity and evolution of plants, or Ecology have to be chosen. The advanced module E 3 (Population Genetics (5 ECTS)) may be chosen for the area of systematic zoology as well as for ecology. Detailed information on the modules currently offered can be found in the module catalogue for the Masters programme 'Evolution, Ecology and Systematics'. For each area of specialization, advanced modules of at least 30 ECTS must offered in an annual cycle:

Systematic zoology:

- Comparative evolutionary developmental biology
- Evolution of insects
- Evolution of Vertebrates

Biodiversity and evolution of plants:

- Micro-evolution and population genetics of plants
- Anthropogenic habitats
- Planning of experiments and scientific methods for biodiversity research
- Major excursion 'Biodiversity and evolution of plants'

Ecology:

- Theoretical ecology
- Concepts of ecology
- Methods of ecological research
- Research internship in ecology
- Major excursion in ecology

Additional advanced modules are also offered in an annual cycle, but will only be held with a sufficient number of participants (general 6 or more). In consultation with the mentor for the Master thesis, it may also be possible to combine advanced modules from the three areas of specialization within in the Masters programme 'Evolution, Ecology and Systematics'. Modules from other Masters programme related to biology or the earth sciences may be recognized and credited upon review by the Examinations Committee.

(2) In the second year of study, students independently undertake scientific work in a specialization and a project module (30 ECTS each), and write a Master thesis (30 ECTS).

(3) Information on the structure of the individual modules and the ECTS for each module can be found in the module descriptions and the study plan in the module catalogue. Module descriptions also include information on the person responsible for the respective module, the requirements for participation, the workload to be expected, information about content and methods for teaching, learning and working, as well as the type of examination and examination requirements.

§ 8

International Mobility of Students

(1) To complement studies at the Friedrich Schiller University, a study-related stay abroad may make sense. Academic achievements produced during a study-related stay abroad are recognized and credited if equivalence can be ascertained. This also applies if leave of absence was granted to the student concerned for the stay abroad. The recommended time frame for the study-related stay abroad (mobility window) are notably the modules of the second and third semester. By signing an agreement on the courses to be taken (*Learning Agreement*), binding agreements may be concluded in advance regarding the subsequent recognition of achievements.

(2) Different starting and ending dates of semesters at universities abroad may lead to overlaps with examination dates at the home university. Upon formal request, the Examinations Committee in these cases facilitates individual arrangements for taking affected module examinations at an appropriate time.

§ 9

Assessed and Non-Assessed Coursework and Examinations

(1) The type and scope of assessed and non-assessed coursework and examinations as well as the respective requirements are defined in the module descriptions and are announced by the respective teaching staff at the beginning of the module at the latest.

(2) Basic and advanced modules are graded pursuant to § 9 (11) of the Examination Regulations, and, pursuant to § 14 (5) of the Examination Regulations and through the earned credit points, become part of the weighted final grade.

§ 10

Admission to Individual Modules

(1) Prerequisites for admission to individual modules are specified in the module descriptions. Admission to the project module normally requires the successful completion of two basic modules. Admission to write the Master thesis normally requires the completion of all basic and advanced modules as well as the project module. Exceptions are decided upon by the Examinations Committee.

(2) For individual required elective modules, the number of participants may be limited if this is justified by factual reasons, particularly for reasons of available space or equipment.

§ 11

Subject-Specific Academic Advisory Service

(1) Subject-Specific Academic Advisory Services are to be offered by mentors from among the academic staff of the respective study programme and provide individual assistance in the planning of the studies. The Examinations Committee decides on the appointment of mentors.

(2) Non subject-specific questions and concerns should be addressed to the Study and Examinations Office at the Faculty of Biology and Pharmacy or the Central Academic Advisory Service of the Friedrich Schiller University Jena.

§ 12

Evaluation of Courses Offered and Quality Control

(1) The Faculty of Biology and Pharmacy is committed to constantly modernizing and improving the courses offered. The Examinations Committee regularly evaluates the recommended study plan and the range of modules offered in due consideration of the developments in the specific field, of professional requirements, of the performance of students in examinations and actual durations of study. The study plan and the module catalogue are updated and published electronically in sufficient time before the beginning of every academic year. Amendments to the module catalogue or the Study and Examination Regulations require a decision by the Faculty Council and approval by the Rector.

(2) In addition, course evaluations are conducted in cooperation with the biology student representative committee (*Fachschaft*) every semester. The results are discussed with concerned academic staff and analyzed by the Examinations Committee. The goal of these evaluations is to optimize courses and to improve the study conditions in the Masters programme, particularly regarding acceptance from the students, the content of the study programme and the shortening of study times.

§ 13

Equal Opportunity Clause

All titles and functions in (the German version of) these Regulations equally refer to men and women.

§ 14

Coming into Effect

These Study Regulations come into effect on the first day of the month following their announcement in the journal of legal notices of the Friedrich Schiller University (*Verkündungsblatt der Friedrich Schiller Universität*).

Jena, 18 February 2016

Prof. Dr Walter Rosenthal
President of the Friedrich Schiller University