

**Study regulations
of the School of Medicine of the Friedrich Schiller University of Jena
for the course Molecular Medicine with the final degree Master of Science¹**

According to § 3 subsection 1 in conjunction with § 34 subsection 3 sentence 1 of the Thuringian University Act (ThürHG) of December 21, 2006 (GVBl. p. 601), last amended by Art. 2 of the law of December 16, 2008 (GVBl. p. 535), the Friedrich Schiller University of Jena issues the following study regulations. The Council of the School of Medicine adopted these study regulations on March 11, 2008. The Council of the Bio-pharmaceutical department approved them on April 2, 2008. The Senate of the Friedrich Schiller University of Jena approved them on May 6th 2008. The Rector approved them on April 20, 2009.

Content

§ 1	Purview
§ 2	Admission requirements
§ 3	Duration of studies
§ 4	Beginning of studies
§ 5	Objective of studies
§ 6	Structure of studies
§ 7	Extent and content of studies
§ 8	International mobility of students
§ 9	Course and examination requirements
§ 10	Admission to course sections and to individual modules
§ 11	Student advisory service
§ 12	Evaluation of course offerings and quality assurance
§ 13	Equalization clause
§ 14	Date of effect

**§ 1
Purview**

These Study Regulations regulate objectives, content and structure of studies in the consecutive research-oriented course Molecular Medicine with the final degree Master of Science (abbreviated: "M. Sc.") at the School of Medicine of the Friedrich Schiller University of Jena. They apply in conjunction with the accompanying Examination Regulations (Master Examination Regulations (MER)) in the version valid at the time. These provisions are likewise valid for the postgraduate course Molecular Medicine with the final degree Master of Science (abbreviated: "M. Sc.") at the School of Medicine of the Friedrich Schiller University of Jena.

**§ 2
Admission requirements**

(1) The master's degree course Molecular Medicine is consecutively based on the bachelor's degree course biochemistry/molecular biology of the biological-pharmaceutical department of the Friedrich Schiller University of Jena. Graduates of this course will be admitted in general if their grade point average is at least "good". The same applies to applicants with the degree Bachelor of Science in biochemistry or an equal degree in a technically relevant subject.

¹ Rechtsverbindlich ist allein die im Verkündungsblatt veröffentlichte deutsche Fassung der Ordnung.

(2) For applicants with the first state exam in medicine, the master's degree course Molecular Medicine is a postgraduate course according to § 42 subsection 3 No. 1 ThürHG. Admission requirements are defined in Annex 1 to the Study Regulations.

(3) Graduates of related courses of study will generally be admitted if their degree is comparable. Comparability will be determined in an examination of each individual case by the board of examiners. Particularly content of, and grades in the degree program, duration of study, career, and the applicant's motives will be taken into consideration in the examination of each individual case. An admission on condition is possible.

(4) The complete documents in support of an application include

(a) a letter of application in which the applicant in a maximum of 500 type-written words elaborates on motivation and suitability as well as on course-related abilities and skills for taking up the desired course of study (letter of motivation);

(b) if necessary the submission of duplicates or photocopies of references;

(5) Adequate knowledge of the English language is expected because due to the English language course offerings they are necessary in order for the studies to be successful.

(6) The number of admissions is limited. Should the number of applicants exceed the number of university slots, a selection is made according to the following criteria: 1. Final grade point average, 2. Aptitude interview, 3. Motivation.

§ 3

Duration of studies

(1) The number of terms prescribed for the completion of the course including the time for the master's exam comprises four semesters. The university guarantees that the studies can be completed in the envisaged time.

(2) The number of terms prescribed for the completion of the course for applicants according to § 2 subsection 2 is 2 semesters.

§ 4

Beginning of studies

Master's degree studies commence in the winter semester.

§ 5

Objective of studies

(1) It is the objective of the master's degree studies as a consecutive degree in the field of molecular medicine to prepare students for a research-oriented and science-supported occupation or to lay the foundation for secondary training programs within and outside the university with specialized scientific training.

(2) Students acquire deeper knowledge of professional theory, of the methods and methodology of molecular-medicine's branches, namely molecular pathology, molecular pharmacology, human genetics, clinical chemistry / molecular diagnostics and medical biometry as well as of selected areas of recent clinic-related molecular-medical research.

(3) After successful graduation students will also have at their disposal specialist and interdisciplinary key-qualifications (inter alia social competence, team spirit) which are required for a research-oriented and science-supported occupational field. They shall be enabled to prepare and implement subject-specific research concepts. In doing so they shall demonstrate their ability to critically categorize scientific results, think interdisciplinarily and act responsibly as well as cross-disciplinarily analyze complex molecular-medical problems, interpret results and develop solutions.

§ 6 Structure of studies

(1) The courses of study have a modular structure. Individual modules are composed of different forms of learning and working such as lectures, seminars, practical exercises, independent studies and examinations. Each module forms a learning and examination unit which is documented by the result on the diploma.

(2) The studies are subdivided in modules of molecular-medical professional studies which comprise 7 obligatory and elective modules. During the first year of study the modules human genetics (MOLMED-O.1), clinical chemistry/molecular diagnostics (MOLMED-O.2) with 6 credit points (CP) each and medical biometry (MOLMED-O.3) with 4 CP as well as molecular pathology (MOLMED-O.4, 8 CP) and molecular pharmacology (MOLMED-O.5, 6 CP) are begun and finished. Within these modules medical basics as well as molecular relations are conveyed. Likewise during the first year of study students will commence specialty training which extends over two semesters. Altogether 5 obligatory and two elective modules have to be successfully completed (in total 60 CP). The following specialty modules (elective modules) are offered:

MOLMED-S.1 Molecular intensive care, 15 CP

MOLMED-S.2 Gynecology and obstetrics, 15 CP

MOLMED-S.3 Cardiology, 15 CP

MOLMED-S.4 Molecular genetics, 15 CP

MOLMED-S.5 Molecular oncology, 15 CP

MOLMED-S.6 Neuroscience, 15 CP

MOLMED-S.7 Rheumatology, 15 CP

MOLMED-S.8 Transgenic animal models, 15 CP

MOLMED-S.9 Medical microbiology, 15 CP

MOLMED-S.10 Medical immunology, 15 CP

MOLMED-S.11 Urology, 15 CP

(3) During the second year of study and in addition to completing the obligatory modules special problems of molecular pathology (MOLMED-O.6, 8 CP) and special problems of molecular pharmacology (MOLMED-O.7, 7 CP) students make preparations for their master's thesis as well as write the thesis itself (in the English language). The module master's thesis (MOLMED-PM.3) comprising 30 CP is based on 2 modules consisting of project planning (MOLMED-PM.1) and introductory project for the master's thesis (MOLMED-PM.2) with altogether 15 CP.

(4) A special curriculum applies to applicants according to § 2 subsection 2 which comprises a variety of specialty modules (MOLMED-S.), project planning (MOLMED-PM.1), as well as the introductory project for the master's thesis (MOLMED-PM.2) with a total of 30 CP and the master's thesis (MOLMED-PM.3, 30 CP).

§ 7

Extent and content of studies

(1) Studies comprise a total accomplishment of 120 credit points (CP), 60 CP for applicants under § 2 subsection 2, according to the European Credit Transfer System (ECTS). 60 CP are to be earned per year of study. In accordance with ECTS guidelines a student's workload of 30 hours in courses with compulsory attendance and self-study is assumed for each credit.

(2) It is the objective of the studies to convey to the students thorough knowledge in the field of molecular medicine and to enable them to work independently according to scientific methods. To be able to investigate and explain processes and problems of molecular medicine students are offered the obligatory modules human genetics (MOLMED-O.1, 6 CP), clinical chemistry/molecular diagnostics (MOLMED-O.2, 6 CP), medical biometry (MOLMED-O.3, 4 CP), molecular pathology (MOLMED-O.4, 8 CP), molecular pharmacology (MOLMED-O.5, 6 CP), special problems of molecular pathology (MOLMED-O.6, 8 CP) and special problems of molecular pharmacology (MOLMED-O.7, 7 CP) are offered.

(3) At the same time the elective modules molecular intensive care (MOLMED-S.1, 15 CP), gynecology and obstetrics (MOLMED-S.2, 15 CP), cardiology (MOLMED-S.3, 15 CP), molecular genetics (MOLMED-S.4, 15 CP), molecular oncology (MOLMED-S.5, 15 CP), neurology (MOLMED-S.6, 15 CP), rheumatology (MOLMED-S.7, 15 CP), transgenic animal models (MOLMED-S.8, 15 CP), medical microbiology (MOLMED-S.9, 15 CP), medical immunology (MOLMED-S.10, 15 CP) and urology (MOLMED-S.11, 15 CP) are offered which convey profound knowledge on current clinic-related problems and methods of molecular medical research including research-oriented internships. The curriculum in the version valid at the time informs about further elective offers. Successful studies of molecular medicine qualify students for medical research at universities, independent research institutions as well as in industry.

(4) The description of the individual modules may be taken from the module catalogue. The module descriptions inform about the person responsible, the entry requirements, usability, status of a module, forms of work and learning, workload and the amount of credit points to be earned, content and qualification objectives of the module as well as the examination requirements and their evaluation. Furthermore the module description informs about the frequency with which the module is offered as well as the duration.

§ 8

International mobility of students

(1) The faculty feels obliged to promote international mobility of students. To this goal concrete course offers shall be developed with selected partner universities to sensibly supplement the professional studies in molecular medicine.

(2) The signing of an ECTS Learning Agreement before leaving on a stay abroad during studies guarantees recognition of study periods and course and examination performances completed from outside the purview of the “University Organization Act” (“Hochschulrahmengesetz”)

§ 9

Course and examination requirements

The type and extent of course and examination requirements are regulated in the examination regulations. The descriptions of the modules inform about the individual module examinations and the evaluation of component examinations. The person responsible for the module determines the date of the examinations. In addition, he can determine the extent of examination requirements in accordance with § 9 of the examination regulations. Dates of examinations and further specifications are announced at the beginning of the module.

§ 10

Admission to course sections and to individual modules

(1) The requirements for admission to the modules of the professional studies in molecular medicine are to be taken from the module descriptions in the module catalogue. Following module interdependencies are to be observed:

Module code	Admission requirements
MOLMED-PM.1	MOLMED-O.1, MOLMED-O.2, MOLMED-O.3, completion of the selected specialty studies
MOLMED-O.6	MOLMED-O.4
MOLMED-O.7	MOLMED-O.5
MOLMED-PM.2	MOLMED-PM.1
MOLMED-PM.3	MOLMED-O.6, MOLMED-O.7, MOLMED-PM.2

(2) The number of admissions may be limited in some modules if necessary due to the actual situation, especially spatial and technical conditions.

§ 11

Student advisory service

(1) The Institute of Molecular Cell Biology employs professional student advisors from the respective branches of molecular medical professional studies. They advise students on subject-specific matters so that they are able to organize their studies toward obtaining the degree within the number of terms prescribed.

(2) Furthermore student advisory service is the task of each lecturer. During their studies students may choose a person of special trust from the teaching staff as a mentor and ask their advice independently from attending their courses.

(3) The chairman of the board of examiners, his deputy, or a person named by the board advises students on questions concerning the study and examination regulations.

(4) The central student advisory service of the Friedrich Schiller University advises on questions that are not subject-specific.

§ 12

Evaluation of course offerings and quality assurance

- (1) The faculty feels obliged to constantly update and improve its course offerings. In consideration of the progress of the subject and professional demands the board of examiners regularly evaluates the curriculum and the module offerings in accordance with § 7 subsection 4 of the examination regulations.
- (2) The board of examiners records and analyzes teaching progress within the various course offerings and reports to the study conference twice a year on performance development and the organizational process within the course.
- (3) Moreover, in cooperation with the university project of teacher evaluation the experience with the master's degree course is evaluated particularly in regard to acceptance by students and the occupational field, study conditions, as well as the offering of specialist and interdisciplinary possibilities of qualification. The resulting assessment of teacher evaluation is reported to the study conference once a year.
- (4) The study conference integrates the qualitative and quantitative analyses of adaptation of the course offerings to the development of the specialist field, student and graduate performance records and the results of the teacher evaluation and decides on necessary measures to optimize the course.

§ 13

Equalization clause

Terms of status and function in these regulations apply equally in the female and in the male form.

§ 14

Date of effect

These regulations will come into effect on the first day of the month following their publication in the official bulletin of the Friedrich Schiller University

Jena, April 20, 2009

Prof. Dr. Klaus Dicke
Rector of the
Friedrich Schiller University