

**Examination Regulations of 18 June 2015  
for the Study Programme 'Medical Photonics'  
Seeking the Degree 'Master of Science'**

Pursuant to § 3 (1) in conjunction with § 34 (3), sentence 1 of the Thuringian Higher Education Act (*Thüringer Hochschulgesetz, ThürHG*) of 21 December 2006 (published in the journal of legal notices of the federal state Thuringia, *GVBl.* p. 601, in German), last amended through Art. 1 of an act adopted by the state parliament on 16 April 2014 (*GVBl.* p. 134), the Friedrich Schiller University Jena issues the following Examination Regulations. The Council of the Faculty of Medicine has adopted the Regulations on 10 February 2015, the Council of the Faculty of Chemistry and Earth Sciences on 11 February 2015, and the Council of the Faculty of Physics and Astronomy on 12 February 2015. The Senate of the Friedrich Schiller University Jena has approved the Examination Regulations on 16 June 2015.

The President of the Friedrich Schiller University has authorized the Regulations on 18 June 2015.

**Content**

- § 1 Objective of the Examination
- § 2 Degree
- § 3 Standard Duration of Study
- § 4 Structure of the Study Programme
- § 5 Study Plan and Module Catalogue
- § 6 Recognition of Times of Study, Assessed and Non-Assessed Coursework, Examinations
- § 7 Examinations Committee
- § 8 Person Responsible for a Module, Examiners and Assessors
- § 9 Types of Examination
- § 10 Grading of Examinations and Coursework, Generating Grades
- § 11 Re-taking Examinations
- § 12 Non-appearance, Withdrawal, Deception, Infringements of Regulations
- § 13 Cases of Special Hardship, Compensation for Disadvantages
- § 14 Type and Scope of the Master examination
- § 15 Additional Modules
- § 16 Examination Dates and Deadlines for Examinations
- § 17 Registering for the Master Examination
- § 18 Admission Procedures
- § 19 Module Examinations
- § 20 Research Internship
- § 21 Master Thesis
- § 22 Passing the Master Examination, Overall Grade
- § 23 Grade Certificate, Diploma Supplement, Degree Certificate
- § 24 Invalid Examinations
- § 25 Viewing Examination Documents, Examination Files, and Retention Period
- § 26 Appeal Procedure
- § 27 Equal Opportunity Clause
- § 28 Coming into Effect

## I. General Provisions

### § 1

#### Objective of the Examination

(1) The successful completion of the Master examinations in the study programme 'Medical Photonics' leads to a second academic degree in the field of medical optics and photonics qualifying them to work in their profession.

(2) With the successful completion of the Master examinations, students prove to have acquired in-depth knowledge and skills in the fields of humanbiological, physical, and chemical fundamentals as well as in an individually chosen area of specialization in biomedical research or clinical practice to independently apply sophisticated optical and photonic methods. In addition, they demonstrate that they can critically evaluate scientific data, that they have been enabled to think and act interdisciplinarily and responsibly, and to analyse complex questions and challenges of medical photonics also across disciplines, to interpret findings correctly, and to find solutions.

(3) With their degree, graduates of this study programme prove to have acquired the knowledge and skills qualifying them for practical work in research and development.

### § 2

#### Degree

Upon successful completion of the Master examinations, the Friedrich Schiller University Jena awards graduates the academic degree 'Master of Science' (abbreviation: M. Sc.).

### § 3

#### Standard Duration of Study

(1) The standard duration of study is two academic years, during which a total of 120 credit points (ECTS) has to be earned. Per year of study, a total of 60 ECTS has to be earned. Pursuant to the stipulations of the European Credit Transfer System (ECTS), a workload of a total of 30 hours of in-class and independent studying is assumed for every one credit point. The overall workload for all assessed and non-assessed coursework, including examinations, shall not exceed 1800 hours per year of study, including times spent studying during lecture-free periods.

(2) The range of courses offered and the study plan are organised in a way that students are able to attend all compulsory courses and write their Master thesis within the standard duration of study.

(3) The following times are not counted as part of the standard duration of study as specified in (1) above if a duly justified request for leave of absence has been submitted and granted:

- maternity and parental leave;
- military and alternative service;
- times when a student was unable to continue his or her studies due to serious illness if a medical certificate is provided;
- a study-related stay abroad;
- times during which a student was an elected member of a body prescribed by law or a statutory body of the university.

Detailed stipulations can be found in the Matriculation Regulations (*Immatrikulationsordnung*) of the Friedrich Schiller University Jena. Requests for leave of absence must be addressed to the Student Service Centre (*Studierenden-Service-Zentrum*).

(4) For part-time students, time periods and deadlines are twice as long as stipulated in the present regulations.

#### **§ 4**

#### **Structure of the Study Programme**

(1) The study programme is composed of modules. Each module may comprise different forms of instruction and learning, including but not limited to lectures, seminars, practical exercises, independent study periods, as well as examinations. Each module is a learning and examination unit, and usually lasts one semester. Examination results are documented on the Grade Certificate. Credit points (ECTS) are awarded for successfully completed modules only.

(2) The first and second semester of the study programme encompass modules in the areas 'Adjustment' and 'Fundamentals'. In the second and third semester, students also participate in required elective modules ('Specialization' modules) in addition to the above. Practical modules allow students to theoretically and practically explore topics of medical photonics more thoroughly, and prepare students for their Master thesis.

(3) The study programme is concluded with writing and defending a Master thesis.

(4) For students under the terms of § 3 (4) above, a binding study plan adapted to the individual needs is specially developed.

(5) More detailed information on the objectives of the study programme, the division into modules, and the credit points for each module can be found in the Study Regulations and the module descriptions.

#### **§ 5**

#### **Study Plan and Module Catalogue**

(1) Based on the present Regulations, the Council of the Faculty of Medicine, the Council of the Faculty of Physics and Astronomy, and the Council of the Faculty of Chemistry and Earth Sciences jointly adopt a study plan and a module catalogue which also comprises module descriptions. Study plan and module catalogue are announced and made public in good time before the beginning of the academic year.

(2) The study plan provides information about the advisable sequence of the modules to be taken.

(3) Module descriptions in the module catalogue provide information about the content and the qualification objectives of the respective module, the prerequisites for participation, the requirements for earning credit points, the different forms of learning and working, as well as the type of performance assessment and their respective weight for the final grade of the module. In addition, the module descriptions provide information on who is responsible for the module, teaching staff involved in the module, on how often the module is offered, about the required amount of work, and the duration.

(4) As a matter of principle, changes to the module catalogue must be approved by all faculties involved, in particular if they touch on the course sequence or programme structure or the qualification objectives. If changes are only made to the description of content or the different forms of instruction and learning laid out for the module, the faculty responsible for the module may approve the changes on its own. The other faculties involved must be informed.

## **§ 6**

### **Recognition of Times of Study, Assessed and Non-Assessed Coursework, Examinations**

(1) Assessed and non-assessed coursework as well as examinations produced or achieved at another university or another institution of higher education of equivalent status in Germany or abroad are recognized and credited if equivalence can be ascertained. Provisional recognition under certain conditions is possible. If equivalence is ascertained, students have a legal right to have their coursework and/or examination recognized. Recognition requests including all necessary proofs and supporting documents must be addressed to the Examinations Committee.

(2) Equivalence of assessed and non-assessed coursework, including examinations, is to be ascertained if there is no significant difference between the competencies or knowledge and skills acquired and the qualifications required in the study programme 'Medical Photonics'.

(3) Competencies and skills acquired in another way than in an academic study programme that are equivalent to the competencies and skills required for this Masters programme and that are a prerequisite for the successful completion of the programme, are to be recognized and credited at a maximum rate of 50 per cent towards the assessed and non-assessed coursework, including examinations, prescribed for the study programme.

(4) Assessed and non-assessed coursework, including examinations, that was completed or achieved during a study-related stay abroad and as stipulated in a Learning Agreement signed with the Friedrich Schiller University prior to the stay abroad, is to be recognized and credited without another equivalence assessment.

(5) If assessed and non-assessed coursework and examinations are recognized and credited, grades are to be carried over and be included in the calculation of the final overall grade. The Grade Certificate will indicate where coursework and/or examinations were completed or passed.

(6) If the Examinations Committee rejects recognition of assessed and non-assessed coursework and/or examinations, the person who submitted the request is informed why the request did not fulfil the requirements prescribed in (2) above. Information on legal remedies is to be included with the communication of the negative decision.

## **§ 7**

### **Examinations Committee**

(1) To perform the tasks stipulated in these Examination Regulations, an Examinations Committee is set up from among the members of the Faculty of Medicine, the Faculty of Physics and Astronomy, and the Faculty of Chemistry and Earth Sciences. The Committee comprises three representatives from among the professors, one representative from among

other academic staff, and one student enrolled in the study programme. The members of the Examinations Committee and their deputies are appointed by the respective Faculty Council; each faculty involved in the study programme appoints at least one member of the committee. Normally, the term of office of the members of the Examinations Committee is three years, that of the student member normally one year. The chairperson of the Examinations Committee and his/her deputy are elected by the members of the Examinations Committee.

(2) The Examinations Committee has a quorum when the majority of its members including the chairperson or his/her deputy are present. The number of members present is irrelevant for taking a decision if a second meeting is called to deal with a specific matter due to the lack of a quorum in the first meeting and if the invitation to the meeting explicitly pointed this out. Decisions of the Examinations Committee are taken with the majority of the votes cast. In the event of a tie, the chairperson has the deciding vote.

(3) The Examinations Committee ensures the respect of all stipulations of the Examination Regulations as well as the proper execution of examinations. This includes the appointment of examiners and assessors pursuant to § 8 (1) below. In particular, it is competent to decide upon objections filed against decisions taken in the examinations process.

(4) The Examinations Committee monitors quality management and biannually reports to the Joint Conference on the Study Programme (*Studienkonferenz*) regarding the development of examination results and the average duration of study, and it proposes modifications to the Study and Examination Regulations. Once a year, it evaluates the study plan and makes modifications where appropriate to adapt it to new requirements from academic life and professional experience.

(5) The members of the Examinations Committee have the right to attend examinations and to inspect the examination files.

(6) The Examinations Committee adopts Rules of Procedure for its own work. It may, revocably, delegate the handling of tasks, in particular of regular tasks, to its chairperson or the Examinations Office. Besides, the chairperson is authorised to take decision that cannot be delayed instead of referring them to the Examinations Committee; he/she must immediately inform the Examinations Committee of such decisions.

(7) Decisions of the Examinations Committee may be taken by circulation procedure.

(8) Meetings of the Examinations Committee are not public. The members of the Examinations Committee are subject to official secrecy. If a member is not a public employee, he/she is sworn to secrecy by the chairperson of the Examinations Committee.

## § 8

### Person Responsible for a Module, Examiners and Assessors

(1) The Examinations Committee appoints a person responsible for each module. Only members and staff of the Friedrich Schiller University Jena or—in exceptional cases—another university who are or have been authorized to teach independently in the respective study programme or comparable modules as professor, lecturer, or *Privatdozent* (s.o. who has attained his or her *Habilitation*, the German post-doctoral degree/qualification making an individual eligible to take up a professorship, and who has obtained the formal permission to teach independently), or who have a temporary teaching appointment can be appointed as the person responsible for a module.

(2) The person responsible for a module and staff teaching autonomously in a given module are examiners in the respective module without special appointment. Normally, the person responsible for a module is also the examiner. If the person responsible for a module is not teaching in the respective module, the respective teaching staff is the examiner. Insofar as the objective and nature of the examination require, persons may be appointed as examiner by the Examinations Committee who have professional experience in the respective field or experience with the training of new professionals, and who have at least a German Masters degree or an equivalent degree or qualification. As assessor can only be appointed a person who has a qualification equal to that which is to be established with the examination.

(3) Examiners and assessors are subject to official secrecy.

## **§ 9**

### **Types of Examination**

(1) Module examinations may be oral examinations, oral presentations, written tests under supervision (written examination), papers to be written at home or project reports, or other course-related work that can be assessed according to the same standards. Where appropriate, the use of electronic media and electronic documentation may be allowed in examinations.

(2) Where appropriate, it may also be permitted to do assessed coursework or examinations jointly as a group of students (group work). The contribution of each member of the group to be understood as assessed coursework must, however, be clearly identifiable as individual work and must be assessable. A group must generally not comprise more than two students.

(3) In oral examinations, a candidate proves that he/she has acquired sufficient basic knowledge of the subject, understands correlations, and that he/she can explain specific questions in the context of these correlations. Generally, the maximum duration of an oral examination is 30 to 60 minutes. If a module examination comprises several partial examinations, the duration of the examination is to be reduced reasonably.

(4) In oral presentations that a candidate makes on an assigned subject in form of a talk or explaining a graphic presentation (poster, slides or the like) in the framework of a seminar, the candidate proves that he/she can present the main facts of the given subject using different media. The length and extent of the presentation is specified by the person responsible for the concerned module. The presentation is assessed and graded by the person responsible for the module or the respective teaching staff; the candidate is informed of the assessment and grade at the end of the presentation. If an oral presentation is the only assessed coursework or examination in a module, assessment and grading have to be done according to the stipulations in § 10 below.

(5) In a written examination, a candidate proves his/her ability to work on subject-specific assignments and find adequate solutions within a given time frame and with limited resources and tools available making proper use of standard methods from their field of study. Candidates may be given several assignments to choose from or several assignments that will all have to be completed. Generally, the duration of a module examination which consists of a written examination only is 60 to 120 minutes. If a module examination comprises several partial examinations, the duration of the examination is to be reduced reasonably.

(6) With a paper to be written at home, the candidate proves that he/she is able to analyse a problem or issue from the subject studied from a scientific perspective within a given time



frame and taking into account relevant literature and other sources where appropriate, and to present it according to scientific and academic standards.

(7) In a project report—which is normally assigned as group work (cf. (2) above) –, candidates prove that they are able to jointly solve a problem using appropriate standard methods from the field of study, and to adequately present the methodologies used, the data obtained, as well as the results, taking into account relevant literature.

(8) The scope and length of a written assignment not completed under supervision as well as the format are to be specified by the person responsible for the module and may be mandatory. Depending on the scope and complexity of the respective module, a paper to be written at home by an individual student should be 400 to 800 words per credit point to be earned.

(9) When submitting a written assignment not completed under supervision, the candidate confirms in writing that he/she has written the paper (or in case of a paper written as a group, the part that he/she is responsible for and that is marked accordingly) on her/his own and that no other sources or resources than those indicated were used. Direct and indirect citations and ideas from other works are to be marked as such and detailed information on the source is to be given.

(10) Oral examinations are to be held by a panel of two examiners (*Kollegialprüfung*) or one examiner together with one assessor who is also an expert in the respective field. Oral examinations may be held as group examinations or individually. At least one of the examiners shall be a university professor. The main topics and results of the oral examination are recorded in minutes. The result of the examination and the grade awarded are to be announced to the candidate at the end of the oral examination. In cases of group examinations, results are to be announced to each candidate individually.

(11) Assessment of a written examination, a paper written at home, or a project report is to be documented traceably in footnotes and side notes, or, if necessary, in a short summarizing written assessment report. Written examinations are generally assessed and graded by an examiner. A written examination is to be assessed and graded by two examiners if it is a candidate's last opportunity to re-sit an examination and if passing this examination is a requirement for continuing his/her studies. Stipulations for the assessment and grading of the Master thesis are spelled out in § 21 of these Examination Regulations.

## § 10

### Grading of Examinations and Coursework, Generating Grades

(1) Grades for assessed coursework or examinations are decided upon by the responsible examiners. For the assessment of coursework and examinations, the following grades shall be used:

1	= very good ( <i>sehr gut</i> )	= outstanding performance
2	= good ( <i>gut</i> )	= performance considerably above average performance
3	= satisfactory ( <i>befriedigend</i> )	= performance meeting the average requirements for passing
4	= sufficient ( <i>ausreichend</i> )	= performance that despite its shortcomings meets the basic requirements
5	= failed ( <i>nicht bestanden</i> )	= performance that does not meet the basic requirements due to considerable shortcomings

(2) For further differentiation of assessed coursework and examinations, the addition or subtraction of 0.3 from the grades is permitted; the following grades, however, are not permitted: 0.7; 4.3; 4.7; 5.3.

(3) Assessed coursework or examinations may also be simply graded as 'passed'/'not passed' (*bestanden/nicht bestanden, b/nb*). Assessed coursework or examinations graded in this way do not count towards the final module or overall grade.

(4) If a module examination is composed of several partial examinations, the final grade will be the average of all partial examinations. If the various partial examinations cover different subject matters, all partial examinations must be passed. The weighting of the different partial examinations is permitted, but must be determined in the module description.

(5) For the calculation of the module grades and the overall final grade, only the first decimal is relevant, all further digits are dropped without rounding.

(6) The grades (according to the German grading system) shall be:

With an average of up to 1.5	very good ( <i>sehr gut</i> )
With an average of 1.6 up to 2.5	good ( <i>gut</i> )
With an average of 2.6 up to 3.5	satisfactory ( <i>befriedigend</i> )
With an average of 3.6 up to 4.0	sufficient ( <i>ausreichend</i> )

(7) According to the ECTS scale (decision of the Conference of Ministers for Cultural Affairs of 22 October 2004), students are awarded the following relative grades in addition to the grades above:

ECTS grade:

- |   |                    |
|---|--------------------|
| A | The top 10 %       |
| B | The following 25 % |
| C | The following 30 % |
| D | The following 25 % |
| E | The following 10 % |

The basis for the calculation of these grades shall be a group of at least 25 students. If necessary, a group of students from different modules or years may be used.

## § 11 Re-taking Examinations

(1) Module examinations that were failed or are considered as failed can generally be re-taken once. If a module examination comprises several partial examinations in different subject areas, only the parts that were failed have to be re-taken. If an examination is re-taken, the type of examination may differ from the original type of examination. The person responsible for a module will have the authority to decide.

(2) The date for re-sitting an examination is specified in the module announcement at the beginning of the module. It is to be set at a date that there are at least two weeks between the announcement of results of the first examination and the date for the re-sit examination, and that the re-sit examination is completed before the beginning of the lecture period of the following semester.

(3) A second re-taking of a module examination may be possible upon formal request addressed to the Examinations Committee if the other achievements and academic performance of the respective students indicate that it can be expected that he/she achieves



the study objectives. This can be expected if he/she earned at least 20 credit points in the semester concerned. The request must be made before the end of the first six weeks of the lecture period of the following semester. The request will be decided upon by the Examinations Committee.

(4) It is not possible to re-take a module examination in an additional module for a second time.

(5) If re-taken for a second time, a module examination must be passed at the latest one year after the module examination that was failed. Otherwise, the second re-sit examination is considered as failed.

(6) If a candidate does not pass the second re-sit examination or if this examination is considered as failed, the entire module examination is definitely failed.

(7) If the Master thesis is failed for the first time or is considered as failed for the first time, it may be re-taken once. A candidate has to officially announce his/her intention to re-take the Master thesis within eight weeks. After the assignment of a new subject, the second attempt of a Master thesis has to be submitted to the Examinations Committee for the study programme 'Medical Photonics' at latest within the time frame stipulated in § 20 (6) below. Otherwise, the second attempt is considered as failed (*nicht bestanden*) pursuant to § 16 (1) below, and thus the Master examinations as a whole are considered as definitely failed. Re-taking the Master thesis a second time is not permitted.

(8) Unsuccessful attempts to pass an equivalent module examination at the Friedrich Schiller University in another study programme or at another university or institution of higher education of equivalent status within the scope of application of the German Higher Education Framework Act (*Hochschulrahmengesetz*) in the same or a similar study programme are counted towards the possibility to re-take an examination pursuant to (1) and (4) above. The same applies for re-taking the Master thesis.

## § 12

### **Non-appearance, Withdrawal, Deception, Infringements of Regulations**

(1) Examinations are graded as 'not passed' (grade 5.0 according to the German grading system) if a candidate fails to appear at the examination date without good reason or if he/she withdraws from an examination without good reason after it was begun. The same applies if a deadline for submitting a paper to be written at home or another similar assessed coursework, an internship report, or the Master thesis was not met.

(2) If a candidate has reasons justifying his/her withdrawal or him/her failing to appear as stipulated in (1) above, he/she must report these to the Examinations Committee immediately (i. e. generally within three working days) and in writing, and must provide proof. In case of illness or an accident of the candidate or a child for whom the candidate is mainly the sole caregiver, a medical certificate from the public health officer (*Amtsarzt*) has to be provided upon request of the Examinations Committee. This has to attest the candidate's inability to take the examination in question. If the reasons are accepted, a new examination date is scheduled. Examination results that are already available will be taken into account.

(3) If a candidate tries to influence the result of his/her assessed coursework or examination by deception or the use of non-authorized aids or resources, the examination or assessed coursework will be graded as 'not passed' (grade 5.0 according to the German grading system). A candidate who disturbs or interferes with the orderly conduct of an examination

may be excluded from continuing the examination by the respective examiner or the supervisor on duty. The concerned examination or assessed coursework will in this case be graded as 'not passed' (grade 5.0 according to the German grading system). In serious cases of deception, the Examinations Committee may exclude the candidate from taking any other examination or producing any other assessed coursework.

(4) Within four weeks of the announcement of examination results, the candidate may ask for a decision according to (3) sentences 1 and 2 above to be reviewed by the Examinations Committee.

### **§ 13**

#### **Cases of Special Hardship, Compensation for Disadvantages**

(1) If a candidate credibly shows before the examination that he/she is unable to take the examination entirely or partially in its stipulated form due to prolonged or chronic physical or psychological illness, the student will be permitted to do the work in a longer time frame or to do comparable examination work in another form.

(2) The same applies for non-assessed course work. But it has to be assured that the candidate sufficiently participates in in-class studying. Otherwise, the applicant is to be informed of and referred to the possibility to request leave of absence for important reasons in accordance with the Matriculation Regulations of the Friedrich Schiller University Jena.

(3) The request will be decided upon by the Examinations Committee. It also decides on other specifications for continuing studies in such cases. The Examinations Committee may demand a medical certificate or a medical certificate from the public health officer (*Amtsarzt*).

(4) The examinations procedures take into account and respect periods of protection for expectant and nursing mothers as well as parental leave as required by law.

## **II. Master Examinations**

### **§ 14**

#### **Type and Scope of the Master examinations**

(1) The Master examinations comprise several modules and are passed in the course of the study programme.

(2) The Master examinations comprise:

1. examinations (module examinations) in the compulsory and required elective modules of the study programme 'Medical Photonics';
2. the successful completion of a research internship as stipulated in § 20 of these Regulations;
3. the Master thesis.

(3) In the first year of study, students have to pass module examinations in the compulsory modules (modules in 'Adjustment' and 'Fundamentals'), the chosen required elective modules ('Specialization' modules), and the practical work module earning a total of 60 ECTS.

(4) In the third semester, students have to earn a total of 30 ECTS in the required elective modules ('Specialization' modules) and the research internship (research lab work).

(5) In the fourth semester, the Master thesis is to be written and defended successfully. For this, 30 ECTS will be awarded.

## **§ 15 Additional Modules**

(1) The candidate may participate in and complete other modules from those offered at the Friedrich Schiller University (additional modules) if capacity limitations allow.

(2) Additional modules must be completed with an examination. But students cannot earn any ECTS credited towards their study programme. The grades of these examinations do not count towards the final overall grade. But upon formal request of the candidate, additional modules and their grades may be included in the Grade Certificate.

(3) Students must provide the information that they would like to participate in a module as additional module when registering for the module.

## **§ 16 Examination Dates and Deadlines for Examinations**

(1) All module examinations of the first year of study have to be taken for the first time by the end of the fourth semester at the latest, those of the third semester by the end of the fifth semester at the latest. If a candidate fails to do so for reasons that he/she is responsible for, the concerned module examinations are considered as failed for the first time. The right to re-sit an examination if it was failed pursuant to § 11 above remains unaffected.

(2) The Master thesis must be registered with the Examinations Committee at the latest three weeks after the candidate has been informed that he/she has earned 90 ECTS. After allocation of a subject for the Master thesis, the latter must be submitted to the Examinations Office at the Faculty of Medicine within the time frame stipulated in § 21 (6) below.

(3) The candidate him/herself is responsible for observing the deadlines for examinations. He/she must in particular note the cycles and the frequency of individual module examinations determined in the module descriptions.

## **§ 17 Registering for the Master Examination**

(1) Admitted to the module examinations offered concurrently with the course shall be students who

1. are enrolled at the Friedrich Schiller University Jena for the Masters programme 'Medical Photonics';
2. meet all requirements for the module examination in question as stipulated in the module descriptions;
3. have submitted the necessary documentation in full and on time to the person responsible for a module or at a location named by this person;
4. have not definitely failed the concerned or a comparable module examination or a Master examination in the study programme 'Medical Photonics', or are involved in another corresponding examination process.

- (2) Admitted to register for the Master thesis shall be students who
1. are enrolled at the Friedrich Schiller University Jena for the Masters programme 'Medical Photonics';
  2. can provide proof to have earned at least 72 ECTS in the study programme 'Medical Photonics' in accordance with the study plan;
  3. have successfully completed all practical training semesters; and
  4. who have not definitely failed the Master thesis in the study programme 'Medical Photonics', or are involved in another examination process.

## **§ 18 Admission Procedures**

(1) Students have to register for the module examination no later than six weeks after the beginning of the lecture period. Before the end of these six weeks, students may cancel their registration without giving reasons. After the end of the six weeks, registration is binding.

(2) Registering for modules generally requires the successful completion of all modules from previous semesters and years of study. Please refer to the module descriptions in the module catalogue for more details.

(3) The person responsible for a particular module appointed by the Examinations Committee decides on admission or non-admission to module examinations. A special notification is only issued if a student is not admitted. The concerned student is informed about this decision by means customary at the University at least two weeks before the examination date.

(4) The application to register a Master thesis must be submitted at least three weeks before the candidate will start working on it and is to be addressed to the Examinations Committee. Attached to the application must be

1. proof that all prerequisites as stipulated in § 17 (2) above are met;
2. a suggestion for the topic for the Master thesis as well as the desired supervisor; and
3. a declaration on whether or not the candidate has already failed or definitely failed a Master thesis in the study programme 'Medical Photonics', and whether or not he/she is involved in any other examination process.

(5) If it is impossible for the candidate to attach the required documents in the required form as stipulated in (3) sentence 2 above, the Examinations Committee may allow the candidate to provide the proof in a different form.

(6) The Examinations Committee or, pursuant to § 7 (6) above, its Chairperson decides on admission or non-admission to register a Master thesis.

- (7) Admission to write a Master thesis is to be refused if
- a) the prerequisites as stipulated in § 17 (2) above are not met, or
  - b) the submitted documents are not complete, or
  - c) the candidate has already definitely failed the Master examinations in the study programme 'Medical Photonics' at another university in the Federal Republic of Germany, or
  - d) the candidate is already involved in an examination process in the same study programme at another university.

Otherwise, admission may only be refused if the candidate has lost his/her right to take an examination because he/she failed to meet a deadline.

## **§ 19 Module Examinations**

- (1) Each module comprises an examination on the subject matter of the respective module, including the basic skills required for dealing with the subject matter. The credits points for a module are awarded if this examination is passed. § 15 (2) above remains unaffected.
- (2) A module examination may consist of several partial examinations and all types of examination specified in § 9 above may be combined. The type of examination for each module or the combination of examinations and their respective weight for the final grade are specified in the module descriptions.
- (3) Module examinations that are a prerequisite for participation in a module in the following semester are to be organized in a way that the results and final grade of a module, also allowing for a possibility to re-sit the examination, are established before the beginning of the lecture period of the following semester.
- (4) Examinations are generally held in English. Upon formal request by the student, an examination may be held in German if the examiner agrees.
- (5) A module examination is passed if, pursuant to § 10 above, it was graded as 'passed' or given the grade 4.0 or better (according to the German grading system).

## **§ 20 Research Internship**

- (1) The research internship scheduled to be completed in the third semester may be done at an institute or working group of the Friedrich Schiller University Jena, at another university, a non-academic scientific institute, or a research-intensive business active in the field of medical photonics. Content and programme of the internship must be agreed upon with the supervising professor at the Faculty of Medicine, the Faculty of Physics and Astronomy, or the Faculty of Chemistry and Earth Sciences before the beginning of the internship. Academic supervision of the research internship by a university graduate with a university degree qualifying the graduate to supervise an internship in the respective field must be ensured also and particularly if the internship is completed at an institution or enterprise outside the university.
- (2) A written report of the internship must be produced by the student and must be submitted to the supervising professor. With the report, the candidate proves that he/she is able to understandably present and critically reflect on his/her own research work applying academic and scientific standards of the respective field. Factual accuracy of the report is to be confirmed by the supervising professor who will also assess and grade the report pursuant to § 10 (3) above. If the internship report is graded as 'failed' (*nicht bestanden*), the candidate is to be given—within one month of the announcement of his/her grade—the opportunity to revise his/her work.
- (3) If the internship has been completed within the allocated time and the factual accuracy of the report been confirmed, the candidate is awarded the credit points indicated in the module catalogue.

## § 21 Master Thesis

- (1) By writing a Master thesis, the candidate proves that he/she is able to independently work on a problem in his/her field of study within a given time frame and with scientific methods, and to present it according to recognized academic standards. Subject and problem definition are to be formulated in a way that the candidate is able to meet the given deadline without exceeding the estimated workload for a Master thesis of 900 hours.
- (2) The subject of the Master thesis is allocated and the writing of the Master thesis supervised by an examiner appointed by the Examinations Committee pursuant to § 8 (1) above from among the professors of the study programme. The candidate is given the opportunity to propose subjects for his/her Master thesis.
- (3) The subject of the Master thesis can only be allocated after admission to write the Master thesis has been obtained. The subject is allocated by the chairperson of the Examinations Committee and is to be put on record. If all admission requirements according to § 17 (2) above are met, a subject is normally allocated three weeks after the application for admission has been received.
- (4) Upon reception of the application from the student, the chairperson of the Examinations Committee ensures that the student is allocated a subject for his/her Master thesis in due time. Deadlines specified in § 16 (2), sentence 1 above are to be applied.
- (5) The time frame to work on the Master thesis is six months. Upon justified request, the deadline may in cases of special hardship be extended by three months. The formal request must include an official statement from the supervisor and must be submitted at the latest two weeks before the deadline to submit the Master thesis. In case of inability to work due to illness, which must be proven with a medical certificate or, upon request, a medical certificate from the public health officer (*Amtsarzt*), the time frame to work on the Master thesis is extended accordingly. The request will be decided upon by the chairperson of the Examinations Committee.
- (6) The subject of the Master thesis can only be rejected and returned once and only in the first four weeks after the allocation thereof. The time passed until the rejection and returning of the subject for the Master thesis is not counted towards the overall time frame to work on the Master thesis.
- (7) The Master thesis must be written in English and must be submitted to the Examinations Office of the Faculty of Medicine in three printed and bound hard copies and within the prescribed time frame. In addition, an electronic copy (MS Word or PDF format) must be submitted.
- (8) When submitting his/her Master thesis, the candidate confirms in writing that he/she has written the thesis—or in case of group work, the part marked as his/her contribution—on her/his own, that no other sources or resources than those indicated were used, and that direct and indirect citations and ideas from somebody else are marked as such.
- (9) If the Master thesis is not submitted within the time frame prescribed, it is considered as 'failed' (*nicht bestanden*) in accordance with § 12 (1) above.
- (10) The Master thesis is evaluated and graded by two examiners. One of the examiners is to be the one who assigned the subject of the Master thesis. The second examiner is appointed by the chairperson of the Examinations Committee. The evaluation reports must



be ready within 6 weeks of submission of the Master thesis. The grading is done according to § 10 above and reasons for the grading are to be given. The final grade for the written part of the Master thesis is the arithmetic average of the two evaluations if the difference of the two is less than 1.5 grades (according to the German grading system). If the difference of the two grades given by the two examiners is higher than 1.5 (according to the German grading system), a third expert opinion is sought. This also applies if one of the two examiners awards the grade 'not sufficient' (*nicht ausreichend*, according to the German grading system). The third expert is appointed by the chairperson of the Examinations Committee. The final grade of the Master thesis then is the arithmetic average of the best two of the three grades. However, the written part of the Master examinations can only be graded as 'sufficient' (*ausreichend*, according to the German grading system) if at least two of the grades are 'sufficient' or better.

(11) If the Master thesis was given at least the grade 'sufficient' (*ausreichend*, according to the German grading system), the Master examinations are completed with an oral presentation of the Master thesis. The candidate presents the most important results, outcomes, or findings of his/her Master thesis in a 20 minute presentation in English. In a subsequent academic discussion, the candidate is given the opportunity to defend the results, outcomes, or findings of his/her thesis. The defence takes place in a session open to all members of the Faculty. The responsibility to organize this session (setting the date and inviting candidates) lies with the Examinations Committee. To lead the academic discussion, the Examinations Committee appoints one of the professors (speaker, *Sprecher*). Evaluation and grading of the presentation is done by the speaker, the examiners of the thesis, and the present members of the Examinations Committee in an open vote.

(12) The overall final grade for the Master thesis is the weighted average of the grades given for the written (2/3) and the oral (1/3) parts. However, the Master thesis can only be graded as 'sufficient' (*ausreichend*, according to the German grading system) if both, the grade for the written and the oral parts, each are 'sufficient' or better.

## § 22

### Passing the Master Examination, Overall Grade

The Master examinations are passed if all module examinations in the study programme 'Medical Photonics' earning 72 ECTS, the research internship earning 18 ECTS, and the Master thesis earning 30 ECTS were successfully passed. The overall final grade is the weighted average of all final grades of module examinations and the Master thesis; the Master thesis on the one hand and the average of all grades of module examinations weighted according to credit points earned on the other weigh 50% each.

## § 23

### Grade Certificate, Diploma Supplement, Degree Certificate

(1) Upon successful completion of the Master examinations, a Grade Certificate is to be issued promptly, if possible within four weeks. It includes the titles of the successfully completed modules, the corresponding credit points, as well as the results (grades) of all module examinations. In addition and upon formal request of the candidate, additional modules may be included pursuant to § 15 above. The Grade Certificate is signed by the chairperson of the Examinations Committee. The date of the Grade Certificate is the day on which all assessed and non-assessed course work as well as examinations have successfully been completed.

(2) Together with the Grade Certificate, a Diploma Supplement in German and English is issued based on the diploma supplement template developed jointly by the European Union, the Council of Europe, and UNESCO.

(3) If a candidate has definitely failed an examination or if an examination is considered to be definitely failed, the chairperson of the Examinations Committee informs the candidate in writing and includes information on legal remedies.

(4) If a candidate leaves the university or changes his/her study programme, he/she may, upon formal request, be issued a Transcript of Records to document the successfully completed examinations and assessed and non-assessed course work as well as their evaluation.

(5) Together with the Grade Certificate, the graduate receives a Degree Certificate with the same date as the Grade Certificate. It certifies that the graduate is awarded the academic degree 'Master of Science'.

(6) The Degree Certificate is signed by the deans (*Dekane*) of all faculties involved in the study programme and the chairperson of the Examinations Committee, and bears the seal of the Friedrich Schiller University Jena.

### **III. Final Provisions**

#### **§ 24**

#### **Invalid Examinations**

(1) If a candidate's fraudulent conduct during an examination becomes known only after the delivery of the Grade Certificate, the Examinations Committee may correct the assessment for the corresponding examinations with retrospective effect and declare all or part of the examination to be failed.

(2) If admission requirements for an examination were not met without the candidate intending to deceive, and this fact becomes known only after the delivery of the Grade Certificate, the passed examination remedies this shortcoming. If a candidate has gained admission by intentionally deceitful means, the Examinations Committee decides on legal consequences.

(3) The candidate in question must be given the opportunity to be heard prior to any decision.

(4) The incorrect Grade Certificate is revoked and a revised version issued where applicable. Together with the revoked Grade Certificate, also the Degree Certificate is revoked if the examination is declared to be failed due to fraudulent conduct. A decision pursuant to (1) and (2), sentence 2 above must be taken within 5 years after the date of issue of the Grade Certificate. After this time, it is no longer permitted.

#### **§ 25**

#### **Viewing Examination Documents, Examination Files, and Retention Period**

(1) After the announcement of results of module examinations, the candidate must, within a reasonable time frame, be given the opportunity to view the files of his/her written examinations and, where applicable, the corresponding evaluation reports or minutes of the examiners. Place and date for this are set by the examiner.

(2) Upon formal request, a student is to be given the possibility to view documents related to his/her Master thesis as well as his/her own examination files in the premises of the Examinations Office. The date for this is set by the Examinations Office.

(3) Examination files have to be kept and stored for at least one year after each student's completion of the study programme. The location for storing examination files is set by the Examinations Committee.

## **§ 26 Appeal Procedure**

(1) Negative decisions and other onerous administrative decisions that were taken pursuant to these Examination Regulations are to be communicated in writing, reasons must be given, and legal remedies indicated. Within one month of receiving such notification, the concerned student or graduate may file an objection with the Examinations Committee.

(2) The objection will be decided upon by the Examinations Committee. If the objection is against a decision made by examiners, the Examinations Committee makes a decision after consultation with the examiners.

(3) Members of the Examinations Committee cannot assume this responsibility of the Examinations Committee if they were involved in the examination that the objection is directed at.

(4) The decision on the objections is to be taken at the earliest possible date. If the objection is not granted, the notice must give reasons and include information on legal remedies. The notice on the objection is to be delivered to the appellant.

## **§ 27 Equal Opportunity Clause**

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

## **§ 28 Coming into Effect**

These Examination 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 June 2015

Prof. Dr Walter Rosenthal  
President of the Friedrich Schiller University Jena