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**Subject-Specific Study and Examination Regulations for the Biophysics Master's Programme offered by the Faculty of Natural Sciences of Ulm University of 5 August 2014**

Based on § 32 (3) of the state university law (Landeshochschulgesetzes – LHG) in the version of Article 1 of the third law on changes to higher education regulations (Drittes Hochschulrechtsänderungsgesetz) of 1 April 2014 (law gazette p. 99 ff), the Senate of Ulm University, in its meeting on 17 July 2014, adopted the following Subject-Specific Study and Examination Regulations for the Biophysics master's programme. The President of Ulm University approved these according to § 32 (3) sentence 1 LHG on 5 August 2014.

**I. General provisions**

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**II. Biophysics master's programme**

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- § 15 Subject-specific admission requirements for the master's thesis in Biophysics

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## **Preliminary remarks on language use**

According to article 3 (2) Basic Law, men and women have equal rights; male designations of persons and positions used in these regulations apply equally to men and women.

### **I. General provisions**

#### **§ 1 Scope of application (§ 1 General Framework)**

- (1) These Subject-Specific Study and Examination Regulations contain specific regulations for the Biophysics master's programme.
- (2) The Subject-specific Study and Examination Regulations supplement the General Provisions for Study and Examination Regulations regarding Bachelor's and Master's Programmes at Ulm University (General Framework). In case of doubt, the General Framework has priority.

#### **§ 2 Study courses, academic degrees (§ 2 General Framework)**

The Faculty of Natural Sciences of Ulm University, Department of Physics, offers the Biophysics programme leading to the degree of "Master of Science".

#### **§ 3 Commencement of studies (§ 3 General Framework)**

The Biophysics master's programme begins in the winter semester.

#### **§ 4 Standard period of study (§ 5 General Framework)**

The standard period of study in the master's programme is two years.

#### **§ 5 Deadlines (§ 6 (8) General Framework)**

By the end of the examination period of the sixth subject-specific semester, students must have completed and passed the master's examination including the master's thesis. Students' right to be examined terminates if students fail to complete and pass the master's examination including the master's thesis by the end of the examination period of the sixth subject-specific semester unless they are not responsible for exceeding the deadline.

#### **§ 6 Courses and examinations in English or any other foreign language (§ 7 General Framework)**

In general, the language of instruction and examination is English.

### **§ 7 Subject-specific board of examiners (§ 10 General Framework)**

- (1) A subject-specific board of examiners for the Biophysics master's programme is formed.
- (2) The subject-specific board of examiners has seven members. It is composed of four full-time lecturers or full-time professors of Ulm University, one member of scientific staff and two students in an advisory capacity. The term of office of the student members is one year; that of the other members is three years. Reappointment is possible.
- (3) The subject-specific board of examiners takes the decision in cases of doubt covered by neither these regulations nor the General Framework.

### **§ 8 Organisation of module examinations (§ 13 General Framework)**

Written exams and dates for retakes are regulated in § 13 (1) General Framework.

### **§ 9 Related study courses (§ 14 General Framework)**

Study courses related with the Biophysics master's programme are, in particular, master's programmes in physics, physics and management, biology and biochemistry.

### **§ 10 Admission and prerequisites for the module master's thesis (§ 16c General Framework)**

- (1) The period from the assignment of the topic to the submission of the master's thesis is six months. The subject-specific board of examiners may extend this period by up to four weeks. The master's thesis corresponds to 30 credit points.
- (2) In general, the master's thesis is done in either the Departments of Physics, Chemistry, Biology or Molecular Medicine of Ulm University or any cooperating facility.
- (3) The master's thesis may also be done outside the areas listed in paragraph 2 above (external master's thesis). The subject-specific board of examiners ensures that the envisaged master's thesis complies with the scientific principles of the study programme.
- (4) The master's thesis must be submitted to the Studiensekretariat (student administration office) in time in two bound copies and one electronic copy (PDF) in accordance with § 16c (9) General Framework.

### **§ 11 Assessment of module examinations, module handbook (§ 17 General Framework)**

- (1) Modules counting towards the final mark of the Biophysics master's programme are the master's thesis with 30 credit points as well as any graded examinations taken as part of the modules marked as counting towards final mark according to § 14 (2).
- (2) In cases justified by their subject-matter, the written exam may also be by way of multiple choice. The module examination is deemed to have been passed if the student answered a minimum of 60 % of the total achievable points correctly or if the number of points achieved by the student falls less than 20 % below the examination average of all examinees in this examination and the examinee achieved a minimum of 50 % of achievable points.
- (3) If more elective modules are completed than prescribed, these count towards the final mark with their actual weight. If a single module already fulfils the minimum number of credit points, no further modules may be counted in the calculation of the final mark.
- (4) The module handbook states which modules may be taken as elective modules.
- (5) Course work according to § 6 (3) General Framework may be required for (partial) module examinations in compulsory and elective modules in the master's programme. The coursework required is described in the module handbook. Type and scope of the respective coursework are published by the course responsible in good time before the start of the course.

### **§ 12 Retake of module examinations (§ 20 General Framework)**

In the Biophysics master's programme, (partial) module examinations can be retaken twice.

## **II. Biophysics master's programme**

### **§ 13 Study objectives of the study course Biophysics**

- (1) The study course Biophysics provides the professional background for a scientific-technical career in industry, business or in the public sector. Biophysics graduates are able to apply, develop and implement experimental and theoretical methods belonging to the natural sciences to solve practical and theoretical problems and issues using broad and interdisciplinary approaches.
- (2) The master's programme aims to provide more in-depth knowledge based on the completed bachelor's programme in natural sciences and, at the same time, broaden this knowledge towards a more interdisciplinary and specific approach. It enables graduates to work independently in the above described professional fields and to apply the comprehensive expert knowledge gained to independently find solutions to complex problems in natural sciences and technology. More specifically, the degree qualifies for doctoral studies.

## § 14 Study contents, admission to module examinations

(1) All modules require a module examination or several partial module examinations.

(2) The following modules must be completed as part of the master's programme:

No	Examination area/module	CP	E/U/X*
<b>A</b>	<b>Compulsory Biophysics Modules</b>	<b>30</b>	
1	Biophysics Laboratory Course	8	U
2	Advanced Biophysics Seminar	4	E
3	Biophysics: Fundamental Methods	9	E
4	Biophysics: Advanced Methods	9	E
<b>B</b>	<b>Specialisation Modules</b>	<b>18</b>	
5	<p>Modules have to be chosen from two of the following specialisation subjects:</p> <ul style="list-style-type: none"> <li>• Biochemistry</li> <li>• Cell Biology and Genetics</li> <li>• Organic Chemistry</li> <li>• Inorganic Chemistry</li> <li>• Molecular Medicine</li> <li>• Neurobiology</li> <li>• Physics</li> <li>• Stochastics and Bioinformatics</li> </ul> <p>All 18 CP must be graded, and at least 6 CP are necessary for each chosen subject.</p>	18	E
<b>C</b>	<b>Adaptation modules</b>	<b>9</b>	
6	<p>Students must take modules from an area different from the one of their bachelor:</p> <ul style="list-style-type: none"> <li>• for physicists: biochemistry, biology, organic chemistry or molecular medicine;</li> <li>• for all others: physics, mathematics and statistics.</li> </ul>	9	X
<b>D</b>	<b>Additional key qualifications</b>	<b>3</b>	
7	Additional key qualifications	3	X
<b>E</b>	<b>Research phase</b>	<b>60</b>	
8	Biophysics Research Project	15	E
9	Selected research Project	15	E
10	Master's thesis	30	E

\* E = counting towards final mark, U = ungraded, X = graded, but not counting towards final mark

- (3) Within the module “Additional key qualifications”, native speakers of German, foreign nationals holding a German university entrance qualification and students with a good command of German (corresponding to DSH-1) select courses from Ulm University’s offer of additional key qualifications. All other students take German language courses to fulfil module requirements.

#### **§ 15 Subject-specific requirements for admission to the master’s thesis**

Admission to the master’s thesis is subject to the successful completion of the compulsory courses in biophysics according to § 14 (2) no 1 to 4; one module according to § 14 (2) no 5; the adaptation modules according to § 14 (2) no 6; and one of the two research projects according to § 14 (2) no 8 and 9.

#### **IV. Final provisions**

##### **§ 16 Effective date**

These study and examination regulations come into force with effect from winter semester 2014/15. They are published in the Official Bulletin (“Amtliche Bekanntmachungen”) of Ulm University.

The above statutes are approved. They are hereby executed and are to be published.

Ulm, 5 August 2014

Professor Karl Joachim Ebeling

- President -