

**Only the officially promulgated German version is legally valid**

**Examination regulations for the  
Master Study Program “Radiation Biology“  
At the Technical University of Munich (TUM)  
Annex 2: Aptitude Assessment**

**1. Aim of the Aptitude Test**

The qualification for the Master Study Program “Radiation Biology” requires proof of eligibility according to the following rules. The qualifications and competences of the applicant should meet the requirements for a career in radiation biology research, in particular:

- 1.1 The ability to work according to international standards of scientific, basic or translational research.
- 1.2 Relevant scientific expertise acquired in undergraduate studies in natural sciences or life sciences or medicine.
- 1.3 The ability to communicate basic problems of environmental protection issues.
- 1.4 Interest in the field of radiation biology.

**2. Aptitude Assessment Procedure**

- 2.1 The aptitude assessment will be conducted once a year by the TUM School of Medicine.
- 2.2 The application has to be submitted online in *TUMonline* together with all required documents not later than 31<sup>st</sup> of May. Documents, which cannot be submitted by the deadline can be handed in until the 15<sup>th</sup> of August. The diploma documenting the award of the degree (bachelor or equivalent) has to be handed in at the latest 5 weeks after the start of the study. Otherwise a start of the program is not possible.
- 2.3 The following documents have to be included in the online application:
  - 2.3.1 a Transcript of Records showing modules accounting to 140 ECTS or a certificate and the grade of the first and second *Staatsexamen* in the fields of medicine or veterinary medicine.
  - 2.3.2 a CV in tabular form
  - 2.3.3 a motivation letter of up to 2 pages in which the applicant should explain the choice of the study program “Radiation Biology” and what specific knowledge and which specific skills enable the applicant to the field of this

master study. Internships, professional training, studies abroad or other subject-related further education additional to the bachelor's studies need to be proven by official documents.

- 2.3.4 a signed statement that the letter of motivation was entirely written by the applicant without any help from others.

### **3. The Aptitude Assessment Commission**

3.2A commission consisting of the Dean of the TUM School of Medicine, two professors responsible as well as one academic staff. A student from the second year might advise the commission

3.3The members of the Aptitude Assessment Commission are appointed by the Department Council in cooperation with the Dean of the TUM School of Medicine.

### **4. Admission to the Aptitude Assessment**

4.1. Admission to the Aptitude Assessment requires complete submission of all documents by the deadline.

4.2. Whoever fulfills these requirements is admitted to the aptitude assessment.

4.3. Whoever is rejected receives a letter, which explains the reasons for rejection and informs about possibilities to raise an objection.

### **5. Conduction of the Aptitude Assessment**

#### **5.1. First step of the Aptitude Assessment**

5.1.1 The commission evaluates the submitted documents and assesses whether the applicant is suitable for the study program. The commission gives a score based on the submitted documents between 0 and 100, with 0 being the worst, 100 the best possible score.

The criteria for scoring are:

#### **a) Subject-specific qualifications**

A) Bachelor degrees of natural science: mathematics, physics, chemistry physical chemistry

or

B) Bachelor degrees with biochemical/biotechnological background: biochemistry, microbiology, genetics, molecular biology, physiology, immunology

or

C) Medicine or veterinary medicine

If it has been determined that there are no significant differences concerning the acquired competences a maximum of 40 points will be given. Missing competences reduces the score accordingly. Negative points are not given.

**b) Final mark of diploma**

The maximum score amounts to 30 points. For every 0.1 mark better than 4.0 determined from 140 Credits of the bachelor's study or medicine or veterinary medicine *Staatsexamen* 1 point is given. Marks from non-German university diplomas are converted according to the formula recommended by the Bavarian Ministry of Education.

If the Transcript of Records indicates more than 140 Credits, the best marks accounting to 140 Credits will be considered for scoring.

**c) Letter of Motivation**

Two members of the Commission will assess the Letter of motivation giving scores between 0 and 30 points. Criteria are:

- i. the applicant is able to convincingly formulate the reason for application
- ii. the applicant is able to explain in a well-structured way the relation between the personal interests and the contents taught in the master's program, which should be reasoned by advantageous examples such as internships, stays abroad or academic training.
- iii. the applicant is able to formulate all this in adequate English language.

The members of the commission assess each of the criteria individually. The final score is the result of the mean of each single assessment.

5.1.2 The score from the first step of the Aptitude Assessment is the result from all single scores.

5.1.3 Those applicants receiving 70 points or more receive a letter of acceptance to the Master's program.

5.1.4 Those applicants receiving less than 50 points receive a letter of rejection from the Master's program.

**5.2. Second Step of the Aptitude Assessment**

5.2.1 The remaining applicants are invited to an interview. During the second step of the Aptitude Assessment the result from the first step of the Aptitude Assessment as well as the acquired qualifications from the previous study are assessed and equally weighted

The date of the interview will be communicated one week in advance at the latest. The given date and time has to be met by the applicant. If the date of the interview cannot be met by the applicant another date may be granted at the latest two weeks before the start of the master's program.

5.2.2 The interviews are conducted with each applicant individually. The interview should last at least 20 minutes and 30 minutes at the longest. Contents of the interview are:

- Eligibility: basic questions from natural science and medicine; ability to orally explain and discuss problems concerning environment protection, how to evaluate and solve these problems and their resulting social consequences.
- English communication skills.

Knowledge of facts and concepts only taught as part of the master's program are not taken into account for the result of the interview. If the applicant agrees, a MSc student of the second year may sit in the interview as an observer.

5.2.3 The interview will be held by at least two members of the commission. The members assess the interview by giving scores between 0 and 50 points. The final score is the result of the mean from both single assessments.

5.2.4 The total score of the second part of the Aptitude Assessment is the sum of all scores from 5.2.3 as well as 5.1.1 a) and 5.2.2 b). Those applicants who received 70 points or more are accepted to the master's program.

5.2.5 The result of the Aptitude Assessment is communicated in written form and has to be signed by the President of TUM or a delegate. The decision of rejection has to be justified and possibilities to raise an objection need to be added.

5.2.6 The acceptance to the master's program "Radiation Biology" automatically applied to all subsequent applications within this study.

## **6. Record**

The aptitude assessment needs to be documented in written form including the date, duration and the place of the aptitude assessment, the names of the members of the commission, the names of the applicants and the scores from each individual member of the commission as well as the total score. The record should also include the basic contents of the interviews; notes are allowed.

## **7. Repetition**

Those applicants receiving a letter of rejection are allowed to apply again once.