

These regulations have been worded carefully to be up to date; however, errors cannot be completely excluded. The official German is the version that is legally binding.

# **Regulations governing the Qualification Assessment Process in the Bachelor's degree program in Medical Engineering at the Faculty of Engineering of Friedrich-Alexander-Universität Erlangen-Nürnberg**

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amended by statutes of  
February 3, 2012  
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Based on Section 13 (1) and Section 44 (4) of the Bavarian Higher Education Act (Bayerisches Hochschulgesetz (**BayHSchG**)) in conjunction with Section 34 of the Qualification Regulations for Studies at Public Universities in Bavaria (Qualifikationsverordnung (**QualVO**)), FAU enacts the following regulations:

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## **§ 1 Scope, Purpose of the Qualification Assessment Process**

<sup>1</sup>In order to start studying the Bachelor's degree program in Medical Engineering in the first semester or to join at a later semester, students must fulfill all qualification requirements and pass the qualification assessment process pursuant to these regulations. <sup>2</sup>In the qualification assessment process, applicants must prove that they meet the specific quality requirements of the degree program in the areas of mathematics, physics and/or chemistry and can be expected to successfully complete the degree program.

## **§ 2 Committee, Examiners**

<sup>1</sup>A committee consisting of at least one professor as the chairperson together with two other lecturers or full-time research associates employed at FAU who are entitled to administer examinations in the Bachelor's or Master's degree program in Medical Engineering pursuant to Section 9 **ABMPO/TechFak** shall be responsible for organizing and conducting the qualification assessment process. <sup>2</sup>The members and the chairperson and two deputies each shall be appointed by the Faculty Council of the Faculty of Engineering for a term of office of two years; re-election shall be permitted. The committee may appoint full-time lecturers at the Faculty of

Engineering or retired lecturers or full-time research associates employed by the University who are entitled to administer examinations pursuant to Section 9 **ABMPO/TechFak** as examiners for the purposes of conducting individual interviews pursuant to Section 6 (2). <sup>4</sup>The affairs of the committee shall be governed by Section 41 **BayHSchG**.

### **§ 3 Qualification Assessment Process, Admission**

(1) <sup>1</sup>The qualification assessment process is held each semester for admission in the following semester. <sup>2</sup>Applications for admission to the qualification assessment process must be submitted online within the deadlines announced according to local practice for admission in the relevant semester, using the relevant forms and attaching the documents listed in paragraph (2). <sup>3</sup>The committee may extend the deadline under certain circumstances.

(2) The following documents must be submitted with the application:

1. Copy of university entrance qualification
2. Signed chronological curriculum vitae in a tabular form
3. If applicable, an overview of any course and examination achievements completed at an institute of higher education with the confirmation of whether the degree programs in question were failed at the final attempt or if the applicant is still entitled to sit examinations.

(3) In order to be admitted to the qualification assessment process, applicants must submit the documents listed in paragraph (2) to FAU within the stated deadlines.

### **§ 4 Details of the Qualification Assessment Process**

(1) <sup>1</sup>There are two stages to the qualification assessment process. <sup>2</sup>An overall score is determined for each stage.

(2) If a grading system is used that is not equivalent to the system used in Germany, the Admissions Office shall convert the grade of the university entrance qualification accordingly.

(3) <sup>1</sup>The average grade of the applicant's university entrance qualification is converted to a scale of between 0 and 100, with 0 the worst and 100 the best possible score. <sup>2</sup>The scale shall be set in such a way that the lowest possible pass mark for the university entrance qualification shall be awarded 40 points (see **Appendix** for conversion formula).

(4) <sup>1</sup>Applicants shall be informed in writing of the result of the process. <sup>2</sup>Admission shall be granted for the summer semester immediately following the date of the qualification assessment process.

### **§ 5 First Stage of Qualification Assessment Process**

(1) During the first stage of the qualification assessment process, a total score shall be derived as a weighted average of the following criteria:

1. Score for university entrance qualification with the weighting 1/2
2. Score for grade in mathematics with a weighting of 1/4
3. Score for grade in the alternative subject of physics or chemistry with a weighting of 1/4.

(2) <sup>1</sup> Grades pursuant to (1) nos. 2 and 3 shall be calculated from the arithmetic average of all subject grades for each semester in the final years of senior school (Oberstufe) as stated in the applicant's university entrance qualification. If grades are available for several alternative subjects, the alternative subject with the best grade shall be used to calculate the score. If the grades for any of the alternative subjects are poorer than a 3 in the German grading system, paragraph (4) shall apply. <sup>3</sup>Grades shall be converted to give a final score in accordance with Section 4 (3). <sup>4</sup>Section 4 shall apply in instances where it is not possible to determine grades pursuant to (1) nos. 2 and 3.

(3) <sup>1</sup>Applicants shall be considered suitable if their total score pursuant to (1) is at least 75. <sup>2</sup>In this case, the process ends at this stage. <sup>1</sup>Applicants shall be considered unsuitable if their total score pursuant to (1) is less than 60. <sup>4</sup>In this case, the process ends at this stage.

(4) All other applicants shall proceed to the next stage of the qualification assessment process.

### **§ 6 Second Stage of the Qualification Assessment Process**

(1) During the second stage of the qualification assessment process, a total score shall be derived as a sum of the following criteria:

1. Score for university entrance qualification with the weighting 1/2
2. Score for the selection interview with the weighting of 1/2.

(2) <sup>1</sup>The committee shall announce the date of the selection interview at least one week in advance. <sup>2</sup>The selection interview is not public. <sup>3</sup>The selection interview is held as an individual interview lasting approximately 20 minutes with at least one examiner appointed pursuant to Section 2 (3) or one of the lecturers in the committee and an observer pursuant to Section 9 (3) General Degree Program and Examination Regulations for Bachelor's and Master's Degree Programs at the Faculty of Engineering at FAU in the currently valid version. <sup>4</sup>The selection interview is intended to determine whether the applicant can be expected to achieve the learning outcome of the degree program by taking an independent and responsible academic approach. <sup>5</sup>The interview will test the applicant's knowledge of the basics of mathematics (weighting  $\frac{1}{4}$ ) and the basics of physics (weighting  $\frac{1}{4}$ ) at the level of a German secondary school (Gymnasium) and the applicant's knowledge of the content of the degree program (weighting  $\frac{1}{4}$ ) and subject requirements (weighting  $\frac{1}{4}$ ). <sup>6</sup>The selection interview is assessed with an individual grade and a score according to the following table:

<b>Individual grade selection interview</b>	<b>Score Selection interview</b>
1.0 = sehr gut (very good)	100
2.0 = gut (good)	80
3.0 = befriedigend (satisfactory)	60
4.0 = ausreichend (sufficient)	40
5.0 = mangelhaft (poor)	20
6.0 = ungenügend (insufficient)	0

<sup>1</sup>Anyone who does not appear at the arranged appointment or withdraws after the selection interview has commenced shall be deemed not suitable, unless the reasons for this are beyond the student's control. <sup>2</sup>In the event of sentence 1, clause 2, the committee shall allow the applicant to attend the selection interview on another date. <sup>3</sup>The reasons according to sentence 1 clause 2 must be explained and shown credibly to the Examinations Committee without delay. <sup>4</sup>In cases where the applicant is ill, the applicant shall be required to submit a doctor's certificate; a certificate from an official medical examiner may be requested.

(3) <sup>1</sup>Any applicants who obtain a total score of 70 or above shall be deemed suitable. <sup>2</sup>All other applicants shall be considered unsuitable.

### **§ 7 Official record**

<sup>1</sup>An official record shall be produced of the qualification assessment process, showing the date, duration and place of the assessment, the names of the applicants and examiners, if applicable bullet points listing the main questions and answers covered during the selection interview, and the decision of the selection committee. <sup>2</sup>The record shall be signed by the chairperson of the committee or their deputy.

### **§ 8 Adjustments to Examination Arrangements**

Any adjustments to arrangements shall be governed by Section 5 (4)(3) of the Bavarian Higher Education Admissions Law and Section 31 (2)(2) of the Bavarian Higher Education Admissions Regulation.

### **§ 9 Repeat Assessment**

Applicants may attempt the qualification assessment process one more time, at the soonest at the next date scheduled for the qualification assessment process.

### **§ 10 Legal Validity**

(1) These regulations shall come into effect on the day after their publication.

(2) The qualification assessment process shall be suspended for studies beginning in winter semester 2023/2024, summer semester 2024, winter semester 2024/2025 and summer semester 2025.

## Appendix

### Conversion formula

Different grades shall be converted to points on a scale ranging from 0 to 100 according to the provisions stipulated in Sections 1 to 3. 100 points shall correspond to the best possible grade attainable and 40 points to the lowest possible grade which still counts as a pass.

#### 1. German grading system where 1 is the best and 6 the poorest grade

$$\text{Points} = 120 - 20 * \text{grade.}$$

Grades 1,2, ..., 5 and 6 therefore correspond to 100, 80, ..., 20 and 0 points. Grade 4 corresponds to 40 points. As university admission qualifications are given with only one digit after the decimal point in German school-leaving certificates, there is no need to round to a whole number for the purpose of using the formula according to no. 1.

Example: Grades and score for university entrance qualification with grades between 1.0 and 4.0:

Grade of university entrance qualification	Score for university entrance qualification
1.0	100
1.1	98
1.2	96
1.3	94
1.4	92
1.5	90
1.6	88
1.7	86
1.8	84

1.9	82
2.0	80
2.1	78
2.2	76
2.3	74
2.4	72
2.5	70
2.6	68
2.7	66
2.8	64
2.9	62
3.0	60
3.1	58

3.2	56
3.3	54
3.4	52
3.5	50
3.6	48
3.7	46
3.8	44
3.9	42
4.0	40

#### 2. German points-based system (e.g. in the final years of senior school) with 15 as the best and 0 as the worst possible achievement

$$\text{Score} = 10 + 6 * \text{points.}$$

#### 3. Any numerical grading system with grade N, with N<sub>opt</sub> equivalent to the best possible grade and the grade N<sub>best</sub> the lowest possible pass grade.

$$\text{Score} = 100 - 60 * (N_{\text{opt}} - N) / (N_{\text{opt}} - N_{\text{best}}).$$

If the score calculated on the basis of this formula is not a whole number, it will be rounded up to the next whole number to the benefit of the applicant.

Example: The Bulgarian grading system is as follows: N<sub>opt</sub> = 6, N<sub>best</sub> = 3 and 1 is the worst possible grade. The given formula is simplified as follows: score = 100 - 20 \* (6 - N).