Friedrich-Alexander-Universität
Erlangen-Nürnberg

**NEW DRAFT**

# Regulations on the qualification assessment process for admission to and enrollment in the degree program Photon Science and Technology leading to a Master of Science degree at the Faculty of Physics and Astronomy at Friedrich-Schiller-Universität Jena (University of Jena), the Karlsruhe Institute of Technology (KIT) and the Faculty of Sciences at Friedrich-Alexander-Universität Erlangen-Nürnberg (FAU) – admission regulations PST –

**dated July 31, 2025**

Based on the currently valid versions of Section 9 (1) in conjunction with Section 6, Section 90 (1)(2) and Section 95 (3) Bavarian Higher Education Innovation Act (**BayHIG**) dated August 5, 2022, FAU enacts the following regulations with effect for and against the University of Jena and KIT:

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## Section 1 Scope, Purpose of the Qualification Assessment Process

(1) [1]In order to start studying the Master's degree program in Photon Science and Technology 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. [2]During the qualification assessment process, applicants must prove that they meet the specific quality requirements of the degree program pursuant to Section 2, and that they have the prior subject knowledge required to qualify for entry to the Master's degree program and can therefore be expected to complete the degree program successfully.

(2) [1]The aim of the degree program is to provide an education focusing on the latest topics covered in global cutting-edge research into photonics based on the expertise of three leading universities and to prepare graduates in the best possible way for their

future careers and for conducting their own research in the academic sector. [2]Accordingly, applicants are required to meet high qualification standards if they are to be considered capable of completing the degree program successfully. [3]These include previous knowledge in relevant subjects, the ability to organize their studies independently when faced with a wide choice of options, a certain degree of maturity in academic thinking and working, and the ability to cooperate with others in an intercultural and diverse setting. [4]The qualification assessment process serves to check the extent to which applicants meet the individual requirements for completing the degree program successfully.

## Section 2 Required Qualifications

[1]In order to qualify for admission to the Master's degree program, students must have:

1. A Bachelor's degree or equivalent (undergraduate degree) from a university in Germany or another country with a standard duration of study of at least six semesters and at least 180 ECTS credits or an equivalent qualification from Germany or another country, with graduates obtaining skills in the following areas:
   a) At least 16 ECTS credits in the modules Experimental physics I: Mechanics and thermodynamics and Experimental physics II: Electrodynamics/optics of the Bachelor's degree program in Physics at the University of Jena or equivalent modules from other universities in Germany or another country
   b) At least 24 ECTS credits in the modules "Linear algebra and analytical geometry I for BSc Physics, Analysis I for BSc Physics, Analysis II for BSc Physics and Analysis III for BSc Physics in the Bachelor's degree program in Physics at the University of Jena or equivalent modules from other university in Germany or another country,
   c) At least 8 ECTS credits in the module Electrodynamics in the Bachelor's degree program in Physics at the University of Jena or equivalent modules from other universities in Germany or another country and
   d) At least 12 ECTS credits in the modules Introductory laboratory course in Experimental physics I, Introductory laboratory course in Experimental physics II, Introductory laboratory course in Experimental physics III, Modern measuring technology methods and/or Electronics laboratory course in the Bachelor's degree program in Physics at the University of Jena or equivalent modules from other universities in Germany or another country;

   Applicants who did not gain their undergraduate degree at either the University of Jena, FAU or KIT must submit the module descriptions for the above-mentioned modules;
2. Proficiency in English at level B2 CEFR pursuant to Section 4 (2)(1)(6) and
3. Passed the qualification assessment process pursuant to these regulations.

[2]Applicants may not have failed the degree program in Photon Science and Technology or an essentially equivalent degree program at another university at the final attempt.

## Section 3 Admissions Committee

[1]An admissions committee consisting of six members who are eligible to vote is responsible for organizing and conducting the qualification assessment process. [2]Each of the universities involved in the degree program shall provide two voting members. [2]The chairperson and at least two other members shall be university lecturers as their main occupation pursuant to Section 19 **BayHIG**, and ideally also fellows of the Max

Planck School of Photonics. [4]All members and their deputies shall be appointed for a term of office of three years by the relevant Faculty Councils at the universities involved in the degree program. [5]They may be reappointed.

## Section 4 Application for Admission to the Degree Program

(1) [1]The qualification assessment process shall be conducted once a year in the winter semester preceding the semester in which the degree program starts, before the general lecture period commences. [2]Applications for admission to the degree program should be submitted online (FAU application portal) within the deadlines announced according to local practice for the required semester (generally November 30), using the relevant forms and attaching the documents listed in paragraph 2. [3]The admissions committee may extend the deadline under certain circumstances.

(2)[1]The following documents must be submitted with the application:

1. A CV written in English
2. A cover letter in English explaining how the submitted documents demonstrate the applicant's suitability for the degree program
3. Evidence that the applicant has completed an undergraduate degree according to Section 2 (1)(1) (degree certificate, transcript of records, diploma supplement or comparable documents) or a transcript of records or a grade transcript showing the achievements obtained to date in the event that paragraph 4 applies
4. At least two independent letters of recommendation based on the template provided on the homepage of the degree program
5. Proof of proficiency in English at level B2 CEFR, in particular a certificate proving that the applicant has successfully completed TOEFL or IELTS, a German Abitur certificate certifying at least five years spent learning the language, or equivalent proof
6. Proof of university entrance qualification including an APS certificate if required on the basis of the applicant's first degree
7. Optional further certificates pursuant to Section 6 (5).

[2]Proof of language proficiency pursuant to sentence 1 (5) is not required if the applicant acquired their university entrance qualification or relevant undergraduate degree in English. [3]Proof of German language ability is not required.

(3) [1]In order to qualify for participation in the qualification assessment process pursuant to Sections 5 et seq, applicants must submit all documents stated in paragraph 2 (1) to the application portal within the stated deadline, unless stipulated otherwise in sentence 2. [2]If the letters of recommendation pursuant to paragraph 2 (1)(4) are not available by the final deadline for applications, the admissions committee may ask the applicant to submit the letter of recommendation directly.

(4) [1]Notwithstanding paragraph 3, applicants who are enrolled in a Bachelor's degree program may be admitted to the qualification assessment process if it is to be expected that they will have completed their Bachelor's degree program by the time the Master's degree program begins; in this case, applicants must have already achieved at least 100 ECTS credits. In this case, the qualification assessment process shall be based on the applicant's achievements up until the deadline for applications; their application is not re-assessed after the successful completion of the Bachelor's degree program.

(5) [1]Those applicants who fulfill the requirements according to the provisions in Section 5 et seq. shall be invited to participate in the qualification assessment process. [2]Applicants who fail to meet the prerequisites for participating in the qualification assessment process shall receive a notification of rejection including reasons and information on the legal remedies available.

## Section 5 Details of the Qualification Assessment Process

(1) [1]There are three stages to the qualification assessment process. [2]During the first stage, the admissions committee assesses the submitted documents pursuant to Section 6 to determine how well the applicant meets the formal requirements concerning the content, duration and quality of their education to date based on the subject-related and academic skills acquired during their undergraduate degree pursuant to Section 2. [3]The applicants selected on the basis of this phase are invited to participate in the second stage, an electronic test pursuant to Section 7. [4]This test serves to assess the quality of the applicants' subject knowledge in the subjects of relevance to the Master's degree program. [5]In the third stage, those applicants who successfully pass the electronic test are invited to participate in an oral selection interview pursuant to Section 8, during which the examiners assess the applicant's ability to organize their studies independently when faced with a wide choice of options, their maturity in academic thinking and working, and their ability to cooperate with others in an intercultural and diverse setting.

(2) [1]At the end of each stage, the admissions committee decides which of the applicants ought to be invited to attend the next stage or to be rejected. [2]Section 4 (5)(2) shall apply accordingly.

## Section 6 First Stage of Qualification Assessment Process

(1) [1]During the first stage of the qualification assessment process, the admissions committee assesses the documents submitted by the applicants pursuant to Section 4 (2) regarding the required qualifications stipulated in Section 2. [2]In order to compensate for the wide diversity of international qualifications and grading systems, the applications are assessed on the basis of a points system as follows:

1. Total grade of the undergraduate degree pursuant to Section 4 (2)(1)(3) (0 to 20 points pursuant to paragraph 2)
2. Outstanding achievements in the areas of mathematics, electrodynamics and optics (0 to 15 points pursuant to paragraph 3)
3. Two letters of recommendation pursuant to Section 4 (2)(1)(4) from people who have already supervised the applicant in an academic or professional setting (0 to 10 points pursuant to paragraph 4)
4. Other additional factors demonstrating the applicant's suitability for the Master's degree program in Photon Science and Technology, for instance participation in research projects, publications, patents, conferences, workshops, internships, competitions and any awards or scholarships that the applicant has stated in their CV and cover letter and provided proof for pursuant to paragraph 5 (0 to 10 points pursuant to paragraph 5).

(2) [1]The final grade of the applicant's undergraduate degree pursuant to Section 1(2)(1) is assessed as follows. [2]In the case of international qualifications, a percentage

value is calculated, with 100% equivalent to the best possible and 0% the worst possible grade for a pass in the country of origin.

**Table 1: Points allocated pursuant to Section 6 (1)(2)(1)**

| Percent / grade | Points |
|---|---|
| > 97.5% / up to 1.1 | 20 |
| > 95.0% / 1.2 | 15 |
| > 90.0% / up to 1.4 | 10 |
| > 85.0% / 1.5 | 8 |
| > 80.0% / 1.6 | 6 |
| > 75.0% / up to 1.8 | 4 |
| > 70.0% / up to 2.0 | 2 |
| < 70.0% / worse than 2.0 | 0 |

(3) Outstanding achievements in the areas stated below are assessed as follows pursuant to (1)(2):
1. Grade in mathematics 1.3 / A or better, or the equivalent: 5 points
2. Grade in electrodynamics 1.3 / A or better, or the equivalent: 5 points
3. Grade in foundation lecture of optics 1.3 / A or better, or the equivalent: 5 points.

(4) The letter of recommendation pursuant to paragraph 1 (2)(3) is assessed as follows:
1. First letter of recommendation describes the applicant as being “outstanding” or the equivalent: 3 points,
2. Second letter of recommendation describes the applicant as being “outstanding” or the equivalent: 3 points,
3. At least one of the referees is a university lecturer as their main profession pursuant to Section 19 **BayHIG** (or “associate professor” or the equivalent) at a European university or one of the 20 best international universities listed in the Times Higher Education Ranking: 4 points.

(5) Other factors demonstrating the applicant’s suitability for the Master's degree program in Photon Science and Technology pursuant to paragraph 1 (2)(4) shall be assessed as follows:
1. Proof of at least one practical research project going beyond standard requirements for their degree program during which the applicant has made a significant independent contribution: 4 points,
2. Proof of at least two weeks experience in a country other than the country in which the applicant obtained their undergraduate degree for the purpose of completing an internship or attending a workshop etc. 2 points,
3. Proof of at least one independent publication, conference presentation or patent: 2 points,
4. Proof of being recognized for achievements in relevant scientific competitions or proof of being awarded a scholarship from national organizations in the three calendar years preceding the year of application 2 points.

(6) [1]Applicants are invited to attend the second stage pursuant to Section 7 if they have attained a total of at least 26 points in the first stage (assessment pursuant to paragraphs 2 to 5). [2]All other applicants shall be considered unsuitable; Section 5 (2) shall apply accordingly.

## Section 7 Second Stage of Qualification Assessment Process

(1) [1]In the second stage, applicants who have achieved at least 26 points in the first stage are invited to take a subject-related test in English, conducted online on a secure examination platform that conforms with data protection regulations. [2]The test lasts between 80 and 100 minutes. [3]It consists of solving tasks relating to physics, mathematics and engineering. [4] The content and number of tasks shall be designed in such a way that it is highly unlikely that applicants will be able to completely solve all tasks in the time available. [5]Instead, applicants should focus on solving those tasks that they can complete correctly on the basis of their prior knowledge, calling for a high degree of self-organization skills. [6]The date for the test will be communicated to applicants at least one week in advance in accordance with local practice and providing details on the subjects to be tested, the procedure, and permitted aids.

(2) The points for the assessment of the second stage of the qualification assessment process shall be given as a percentage of the total number of points achieved in the test.

(3)[1]Applicants who achieve at least 30% of the total points in the test shall be invited to the third stage pursuant to Section 8. [2]All other applicants shall be considered unsuitable; Section 5 (2) shall apply.

## Section 8 Third Stage of Qualification Assessment Process

(1) During the third stage of the qualification assessment process, a selection interview is held in English to assess the applicant's degree of maturity in academic thinking and working, and their ability to cooperate with others in an intercultural and diverse setting.

(2) [1]The date for the selection interview shall be communicated to applicants at least one week in advance. [2]If an applicant should be unable to attend the selection interview due to reasons beyond their control, a second date may be set upon justified request. [3]The selection interview is an individual examination which lasts approximately 30 to 20 minutes. [4]With the applicant's consent, the selection interview may also be carried out via video call. [5]It will be conducted by two members of the admissions committee pursuant to paragraph 3.

(3) [1]During the selection interview pursuant to paragraph 2, applicants first of all give a presentation lasting approximately 10 minutes about one of their past research projects. [2]In the following discussion, they explain their research and provide more details of their experience to date and their intercultural skills. [3]Applicants are awarded points ranging from 0 to 10 for their degree of maturity in academic thinking and working and their ability to cooperate in an intercultural and diverse setting as follows:

1. Applicant demonstrates a high level of subject knowledge and the ability to discuss their own research: 4 points,
2. Applicant has clearly thought closely about their future academic career, with their plans tying in well with this degree program: 2 points,
3. Applicant expresses themselves well during the discussion: 2 points,
4. Applicant demonstrates a positive and open attitude to a diverse, international setting: 2 points.

(4) [1]Applicants who achieve 8 or more points during the third stage of the qualification assessment process shall be considered suitable and shall receive notification of admission to the degree program. [2]All other applicants shall be considered unsuitable; Section 5 (2) shall apply.

## Section 9 Record

[1]An official record shall be produced for all three stages of the qualification assessment process, showing the date, duration and place of the assessment, whether the selection interview pursuant to Section 8 was conducted online or in person, the names of the applicants and examiners and the decision of the admissions committee in bullet points. [2]The record shall be signed by the chairperson of the admissions committee or their deputy if the chairperson is unable to sign for any reason.

## Section 10 Adjustments to Examination Arrangements

[1]The qualification assessment process shall be adjusted to take into account the nature and extent of a student's disability. [2]Students with a doctor's certificate showing credibly that they are either partially or fully incapable of participating in the qualification assessment process in the intended manner due to long-term or permanent disabilities which do not affect the performance which is being tested shall be entitled to be granted permission by the chairperson of the admissions committee to have this disadvantage offset by working time being extended accordingly or the qualification assessment process being structured differently; however, care must be taken to ensure that the process is still suitable to provide evidence of skills which are being assessed. [3]Sentences 1 and 2 shall apply accordingly to students in special circumstances, the effects of which on the student's ability to sit the examination are similar to a longer illness or disability as stated above in sentence 2.

## Section 11 Resit Examinations

[1]It will not be possible to repeat the qualification assessment process on the basis of the documentation submitted with the first application. [2]It is possible to re-apply on the basis of more extensive documents obtained as a result of subsequent qualifications.

## Section 12 Enrollment

(1) [1]Applicants who successfully complete the qualification assessment process pursuant to the provisions stipulated above and receive the notification pursuant to Section 8 (4)(1) must enroll on the degree program at all three universities involved in the degree program. [2]Students enroll at KIT as regular students (Haupthörer) and at FAU and the University of Jena as guest students (Nebenhörer).

(2) [1]Students must submit the following documents to each of the universities in order to enroll:

1. KIT:
   a) Application for enrollment signed by the student
   b) Certificate and final academic record for the degree pursuant to Section 2 (1)(1)
   c) Official photo ID (ID card/passport)
   d) Proof of de-registration from previous university
   e) Proof of previous study periods
   f) Proof of payment of semester contribution
   g) Proof of admission to the degree program pursuant to Section 8 (4)(1).

2. FAU:
   a) Application for enrollment signed by the student
   b) Certificate and final academic record for the degree pursuant to Section 2 (1)(1)
   c) Official photo ID (ID card/passport)
   d) Proof of de-registration from previous university
   e) Proof of previous study periods
   f) Proof of admission to the degree program pursuant to Section 8 (4)(1).
3. University of Jena:
   a) Application for enrollment signed by the student
   b) Certificate and final academic record for the degree pursuant to Section 2 (1)(1)
   c) Official photo ID (ID card/passport)
   d) Proof of de-registration from previous university
   e) Proof of previous study periods
   f) Proof of payment for issuing the student ID card for the University of Jena (Thoska)
   g) Proof of admission to the degree program pursuant to Section 8 (4)(1).

[2]The requirements regarding form and deadlines stipulated by the respective universities and announced on the homepage for the degree program shall apply.

(3)[1]At KIT, students may provisionally enroll subject to the proviso that they submit final confirmation of obtaining their Bachelor's degree without delay, but at the latest two months after the beginning of the semester in which they have applied for enrollment. [2]If proof is not submitted within the deadline, the offer of a place becomes invalid and enrollment cannot be completed.

(4) [1]At FAU and the University of Jena, if proof pursuant to Section 2 (1)(2) has not been submitted by the date of enrollment, students may still enroll subject to the proviso that

1. they submit proof of completing their degree pursuant to Section 2 (1)(1) on or before re-registering for the second semester if at the time of enrollment they are able to submit an official document from the university at which they are studying for their degree pursuant to Section 2 (1)(1) certifying they have completed the achievements required for completing the degree program and
2. they enroll at KIT within the applicable deadlines.

[2]Students may only start their studies once they have also enrolled at KIT. [3]Students may not re-register for the second subject semester if the condition stated in sentence 1(1) is not met. [4]If a student fails to enroll at KIT within the stipulated deadline, the student shall be de-registered at the latest at the end of the semester for which they enrolled subject to the proviso stipulated in sentence 1.

## Section 13 Legal Validity

[1]These regulations shall come into effect on October 1, 2025. [2]They shall apply for the first time to prospective students applying to start studying in winter semester 2026/2027.