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Statutes for Admission to the Master's Program of Physics at Karlsruhe Institute of Technology (KIT)

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Statutes for Admission to the Master's Program of Physics at Karlsruhe Institute of Technology (KIT)

of February 27, 2023

Pursuant to Art. 10, par. 2, No. 5 and Art. 20, par. 2 of the Act on Karlsruhe Institute of Technology (KIT Act) of July 14, 2009 (bulletin, p. 317 ff.), last amended by Art. 2 of the Act on Amending the University Hospitals Act and other acts of November 15, par. 2 of the Act of Baden-Württemberg on Universities and Colleges (LHG, Landeshochschulgesetz) of January 01, 2005 (bulletin, p. 1 ff.), last amended by Art. 8 of the Act on Adopting a Climate Protection and Climate Change Act and on including the climate issue in further legal regulations of February 07, 2023 (bulletin, pp. 26, 43), the KIT Senate in its meeting of February 20, 2023, adopted the following statutes.

Article 1 – Scope

The present Statutes apply to admission to the master's program of Physics at Karlsruhe Institute of Technology (KIT).

Article 2 – Deadlines

- (1) Admission takes place for both the winter and the summer semester.
- (2) Application for admission, inclusive of all documents required, must be submitted to KIT
- by September 30 for a start of studies in the winter semester,
- by March 31 for a start of studies in the summer semester.

Applications for admission by foreign applicants who are not treated on equal terms with German applicants according to Art. 1, par. 2 of the Ordinance on Admission to Universities (Hochschulzulassungsverordnung), inclusive of all documents required, must be submitted to KIT

- by July 15 for a start of studies in the winter semester,
- by January 15 for a start of studies in the summer semester.

Article 3 - Application

- (1) The type of application depends on the general provisions valid for the admission and enrollment procedure as outlined in the valid admission and enrollment regulations of KIT.
- (2) The following documents must be enclosed with the application:
- 1. A copy of the bachelor's certificate or equivalent degree according to Art. 5, par. 1, No. 1 and the diploma supplement and transcript of records (with the ECTS credits achieved being indicated),
- 2. proofs of the minimum achievements required in Art. 5, par. 1, No. 2, from which the contents of the studies are obvious, in particular transcript of records, and module descriptions, including the completed form to check compliance with the admission requirements,

- 3. a declaration by the applicant as to whether she/he has ultimately failed in an examination required according to the examination regulations or lost the entitlement to an examination for other reasons in the master's program of Physics or a related program with essentially the same content,
- 4. a motivation letter as outlined in Art. 5, par. 2, No. 3,
- 5. a proof of the required language proficiency according to Art. 5, par. 1, No. 5, and
- 6. the other documents specified in the valid admission and enrollment regulations.

KIT may ask for submission of the original documents on the basis of which the decision on admission was made during enrollment.

(3) Enrollment in the master's program of Physics may also be applied for, if the bachelor's degree has not been conferred until expiry of the application deadline outlined in Art. 2, but the applicant may be expected to complete the bachelor's program in due time before the start of the master's program of Physics as a result of her/his previous studies and examination achievements. In this case, the study and examination achievements reached until the time of application must be considered by the decision on admission. The later result of the bachelor's examination will remain disregarded. A certificate of the examination achievements reached until the expiry of the application deadline (e.g. transcript) must be attached to the application.

Article 4 – Admission Committee

- (1) To prepare the decision on admission, the KIT Department of Physics appoints an admission committee consisting of at least two full-time scientific employees. A representative of the students can participate in the meetings of the admission committee with an advisory vote. The admission committee is chaired by one of its members.
- (2) Upon the completion of the admission procedure, the admission committee reports the experience gained to the KIT Department Council. In addition, it makes proposals regarding the improvement and further development of the admission procedure.

Article 5 – Requirements for Admission

- (1) For admission to the master's program of Physics, the following requirements must be met:
- 1. A bachelor's degree or an at least equivalent degree in the Physics program or a related program with essentially the same content at a university, a university of applied sciences, or cooperative state university in Germany or at a foreign university. Studies have been completed within a regular study period of at least three years with a minimum of 180 ECTS credits;
- 2. minimum knowledge and achievements in the following areas:
- a) Theoretical physics with at least 32 ECTS credits, including mandatory achievements in the areas of mechanics, electrodynamics, and quantum

- mechanics; achievements in other areas, such as thermodynamics or static physics, may be recognized in the case of equivalence;
- b) experimental physics with at least 32 ECTS credits, including mandatory achievements in the areas of mechanics, electromagnetism, optics, and atomic physics; achievements in other areas, such as thermodynamics, molecular physics, solid-state physics, nuclear physics, and elementary particle physics may be recognized in the case of equivalence;
- c) independently performed experiments (practical physics courses) with at least 18 ETCS credits.

Other achievements may be recognized in the case of equivalence.

Applicants with a minimum knowledge and minimum achievements according to letters a) through c) of less than 82 credits will be given the opportunity to prove the minimum knowledge specified under letters a) through c) in an interview according to Art. 6, if they can provide proof according to Art. 3, par. 2, No. 2 of at least 30 credits in the area of theoretical physics, at least 30 credits in the area of experimental physics, and 15 credits in the area of practical physics courses;

- 3. a motivation letter (about 1000 to 3000 characters) in the German or English language, which outlines the motivation to start studies in the master's program of Physics at KIT;
- 4. no ultimate failure in an examination required according to the examination regulations in the master's program of Physics or a related program with essentially the same content and no loss of the entitlement to the examination for another reason;
- 5. excellent proficiency in the English language on the level of at least B2 of the Common European Framework of Reference for Languages, as confirmed by one of the following tests:
- Cambridge Certificate CAE or CPE,
- International English Language Testing Service (IELTS) with a total score of at least 6.5 and no partial test worse than 5.5,
- Test of English as a Foreign Language (TOEFL) of at least 90 points,
- UNIcert of level II at least.

The requirement to prove proficiency by one of the above tests does not apply to applicants with:

- A university entrance qualification certificate (Abitur), with the applicant having attended a course in English as a foreign language for at least five years until completion of secondary school and with the final or average grade of the last two years of English lessons having to be 4 (sufficient) or five points at least; or
- a university degree of a university with English being the only lecturing and examination language in the program completed; this must be confirmed in the diploma supplement, the transcript of records, or in the degree certificate; other confirmations relating to the lecturing and examination language will not be accepted as a proof of language proficiency; or

- a university entrance qualification certification of a school, where lessons take place in the English language exclusively; English as the only and official language must be confirmed by the director of the school; or
- a bachelor's thesis written in the English language. In the individual case, proofs other than those listed above **may** be accepted. At the request of the applicant, the admission committee will decide on this matter.
- (2) The admission committee for the master's program of Physics, in agreement with the examination committee of the master's program of Physics, decides on equivalence of the bachelor's degree according to par. 1, No. 1, equivalence according to par. 1, No. 2, and the determination of programs with essentially the same content as outlined in par. 1, No. 3. For recognition of foreign degrees, the recommendations of the Conference of Ministers of Education and agreements concluded within the framework of university partnerships must be considered.

Article 6 - Interview

- (1) The interview is aimed at finding out whether the applicants are competent in the areas of theoretical physics and experimental physics. The applicant's demeanor during the interview and in particular her/his choice of words, approach to tackling problems, and persuasiveness of argumentation will also be evaluated.
- (2) The applicants selected for the interview will be invited by KIT. The interview may take place in person or online. Together with the invitation, the applicants will be informed at least two weeks prior to the interview date about the type of interview (in person or online), the exact date and time, and the venue. The admission committee's interview of the applicant lasts about 20 minutes. Group interviews with up to five applicants at the same time and an accordingly reduced interview time per applicant will also be permitted. The answers of the individual applicants must be recognizable and evaluated separately.
- (3) The members of the admission committee document major questions asked and answers given during the interview and sign the minutes afterwards. The minutes also contain the date and place of the interview, the names of the members of the committee, the names of the applicants, and the respective evaluation(s).
- (4) At the end of the interviews, the members of the admission committee evaluate the qualification of the applicant, her/his interest in the envisaged master's program of Physics, and the career wish on a scale from 0 to 20 points. The interview meets the requirements, as soon as the applicant reaches 10 points at least. The following criteria will be assessed:
 - 1. The applicants are able to discuss issues of theoretical physics and experimental physics in the areas of mechanics, electrodynamics, quantum mechanics, optics, and atomic physics and to apply them to concrete physical problems. For this, up to 15 points may be granted.

2. The applicants are able to present physical issues using correct English terminology and in a didactically attractive way. For this, up to 5 points may be given.

The total reached is calculated as the arithmetic mean of the points given by the individual members of the commission with one decimal place. The result is not rounded.

- (5) The interview will be evaluated with 0 points, if the applicant fails to appear at the time scheduled for the interview without any good reason. In case the applicant stops the interview after its start, she/he will be evaluated based on the result reached up to this time. The applicant has the right to participate again on the next following date of an interview or in the next possible admission procedure, if she/he can prove to KIT immediately after the scheduled date in writing that the absence was due to a good reason. In case of sickness, a medical certificate must be submitted.
- (6) In case the applicant tries to influence the result of the selection interview by deception or by using impermissible aids, the interview will be evaluated with 0 points. An applicant disturbing the proper course of the interview may be excluded from its continuation by the members of the admission committee. In this case, the selection interview is given 0 points.

Article 7 - Decision on Enrollment

- (1) The President decides on admission and enrollment based on the proposal made by the admission committee.
- (2) Admission will be refused, if
- a) the application documents were not submitted in due time according to Art. 2 or not complete according to Art. 3, par. 2,
- b) the requirements outlined in Art. 5 are not fulfilled,
- c) the applicant ultimately failed in an examination required according to the examination regulations or lost the entitlement to the examination or other reasons in the master's program of Physics or another related program with essentially the same content (Art. 60, par. 2, No. 2, LHG).

If the form to check admission requirements (Art. 3, par. 2, No. 2) is not enclosed with the application, the applicant still must be considered in the application procedure. In the case of Art. 3, par. 3, enrollment may be promised subject to proof of the bachelor's degree *immediately, up to two months upon the start of the semester for which enrollment was applied* for at the latest. If this proof is not presented in due time, the promise expires, and no enrollment will take place. If the applicant is not responsible for having exceeded the deadline, she/he must provide the respective proof to the admission committee in writing. In the justified individual case, the admission committee may extend the deadline for submission of the final certificate.

(3) If the applicant does not meet the admission requirements and/or cannot be enrolled, she/he will be informed in writing about the result of the admission procedure. This notification must indicate the reasons and contain an information about the legal remedies available.

- (4) The course of the admission procedure must be documented in writing.
- (5) As for the rest, the general provisions applying to the admission and enrollment procedure of KIT remain unaffected.

Article 8 – Entry into Force

- (1) The present Statutes enter into force on the day after their publication in the official announcements of KIT. They apply to admission for the 2023/24 winter semester for the first time.
- (2) At the same time, the Statutes for admission to the master's program of Physics of May 30, 2008 (Official Announcement of KIT No. 35 of May 30, 2008) cease to be in force.

Karlsruhe, February 27, 2023

Professor Dr.-Ing. Holger Hanselka (President)