By-laws on the Aptitude Assessment

for the

Bachelor's Programme of Health Informatics

at the Deggendorf Institute of Technology

Dated 15 March 2021

On the basis of Art. 13 Para. 2 Clause 2, 44 Para. 4 Clause 5 of the Bavarian University and College Act (BayHSChG) of 23rd May 2006 (GVBl. p. 245, Bay RS 2210-1-1-WK), last amended by § 1 of the law dated 24 July 2020 (GVBl. p. 382) and § 32 of the Ordinance on Qualification (QualV) GVBl. p. 767, BayRS 2210-1-1-3-K/WK) last amended by the Ordinance dated 9 September 2019 (GVBl. p. 586), the Deggendorf Institute of Technology enacts the following by-laws:

§ 1
Purpose of assessment

(1) [1]Admission to the Bachelor's programme of Health Informatics at the Deggendorf Institute of Technology requires a special qualification. [2]The Bachelor's programme of Health Informatics has a special course profile, which is described in Annex 1. [3]Therefore, proof of suitability must be provided in accordance with the following regulations.

(2) [1]The purpose of the procedure is to assess whether, in addition to the qualification demonstrated by the acquisition of the university entrance qualification, the student has an aptitude for the specific qualitative requirements of the Bachelor's programme of Health Informatics. [2]For this programme, the following eligibility requirements must be met in addition to the higher education entrance qualification (HZB):

mathematical-logical and information-technical methods skills as well as the basics of text understanding that can be used to solve interdisciplinary problems in various spheres of activity in the healthcare sector in an international context.

§ 2 Procedure

(1) [1]The aptitude assessment procedure is carried out every six months in the summer semester for the following winter semester and in the winter semester, but only for applications for higher semesters for the following summer semester.

(2) Applications for admission to the aptitude assessment procedure must be submitted to the Deggendorf Institute of Technology together with the application documents through the online application process by 15 July for the following winter semester and by 15 January for the following summer semester (cut-off period).

(3) Details about the higher education entrance qualification must be enclosed with the application/application documents.

§ 3 Commission

[1]The aptitude assessment is carried out by a commission instituted by the Faculty Council. [2]Its size depends on the number of applicants and more than half of its members are university teachers. [3]Research associates can also be appointed as members. [4]The commission is chaired by the Dean or a university professor appointed by the Dean and who teaches in this programme. [5]The members of the commission are appointed for two years. [6]Their term can be extended.

§ 4 How the assessment is carried out

(1) The following criteria are considered for aptitude assessment:
   1. Average grade of the higher education entrance qualification
   2. Written online test:
       The written online test which has a duration of 90 minutes contains questions from the mathematical, information-technical as well as physical and biological subject areas of the programme.

(2) The assessment procedure is carried out as follows:
   1. [1]The average grade of the higher education entrance qualification is converted into points (HZB points) on a scale of 0 to 100, where 0 is the lowest score and 100 is the highest score. [2]The scale must be chosen in such a way that the minimum passing score for the higher education entrance qualification is 40 points (Annex 2). [3]Art. 44 Para. 4 Clauses 5 and 6 of the BayHSchG apply.

   2. [1]The result of the written online test is converted into points, where 0 is the lowest score and 100 is the highest score. [2]If a student obtains 50 or less points, the test is evaluated with zero points and the overall aptitude is determined to be "insufficient".

   3. [1]For the overall assessment, the points of the HZB and the written online test are added together. [2]Both are given equal weighting.

(3) Result of the aptitude assessment:
[1]Applicants who obtain 101 points or more are admitted. [2]Applicants with an overall assessment of 100 or less points receive a rejection notice.

§ 5
Minutes

Minutes of the aptitude assessment procedure are recorded. They indicate the names of the commission members involved, names of applicants and the overall result.

§ 6
Re-registration

[1]Applicants who have not furnished proof of aptitude for the aspired programme can re-register for the aptitude assessment procedure once on the date decided for the following year. [2]In justifiable cases of exception, students may also be allowed to register at a later point in time. [3]Re-registration cannot be done again thereafter.

§ 7
Coming into effect

These by-laws shall enter into force on xx.xxxx.2021 and shall apply to all students who start their studies in the winter semester 21/22.

Annex 1:   Profile of the Bachelor's Programme of "Health Informatics" at the Deggendorf Institute of Technology

In the Bachelor programme of Health Informatics, students acquire comprehensive specialist knowledge in the field of health informatics, which enables them to solve problems directly and to perform management functions in facilities, institutions and organisations in the healthcare sector. They also acquire social skills and methods expertise, which enable them to work confidently and competently in a complex, multi-professional and inter-cultural environment. The training is offered by the Faculty European Campus Rottal-Inn. Graduates of the Bachelor programme of Health Informatics can carry out both scientifically founded and ethically insightful work on the basis of a systematic approach. The integrated practical study semester, which takes place in selected healthcare institutions, organisations and businesses in close coordination with the DIT, helps to achieve this goal. In achieving the outlined qualification goals, the programme's applied orientation is of special importance. The application and transfer of scientific knowledge to concrete, current issues in the field of health informatics will be ensured through the programme's focus on various fields of application. The content and structure of the programme gives students an early opportunity to gain in-depth, interdisciplinary and process-oriented insights into the areas of application that are essential for health informatics.

The course provides students with a broad basic qualification in the essential functions of applied informatics, programming techniques and network administration. Contents related to information technology and programming teaching methods for developing modern software applications for web and applications using common programming languages, taking into account network-technical framework conditions in the health context. They also teach methods for the systematic analysis of problems and their transfer into models. They enable students to competently participate in IT decision-making and workflow processes as well as qualification objectives and actively help shape IT projects. Furthermore, students receive well-founded insights into the operational processes of IT projects as well as the associated and necessary specialist knowledge and expertise. In addition to IT and programming functions, the aspects of data protection, data analysis and the use of IT systems in organisations of the health sector form a central part of the curriculum. This should enable students to develop and implement security-relevant medical products and IT applications. This is essential especially in the health industry, with the increasing need for security of citizens. In addition to the IT and security-relevant content, students are taught the structure and interaction in the health industry. In addition to the basics of business administration, students are enabled to understand the complexity of the health industry and to identify individual stakeholders. They are encouraged to critically approach the different cultural manifestations of the health industry and to analyse and understand the interdependencies between institutional and private-sector actors and, in particular, to derive implications for their own economic activity. Building on the IT modules, the health-relevant modules form a solid basis for the broad education of students and open up numerous employment opportunities. This specialisation must be seen as a special asset of the course: the focus on telemedicine and medical technology paired with international healthcare-related and regulatory frameworks reflects the international orientation of the European Campus Rottal-Inn and represents the uniqueness of the course.

Annex 2:   Conversion formulae

The conversion of different grade scales into points on a scale of 0 to 100 is carried out in accordance with the regulations 1 to 3. 100 points correspond to the highest score and 40 points to a performance that has been rated as just passed in the respective grading system.

1.   German grading system
   1 is the highest and 6 is the lowest grade

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

   Since German certificates write HZB grades to one decimal place, rounding is not required when applying the formula given in No. 1.

2.   German points system (e.g., Kollegstufe (sixth-form level))
   15 is the highest and 0 is the lowest points score

$$\text{Points} = 10 + 6 * \text{points score}$$

3.   Any numerical grading system
   With grade N, where Nopt is the highest score and Nbest is just enough to pass.

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

   If the score calculated according to the given formula is not an integer, it is rounded up to the next higher integer.

Issued based on the resolution dated xx.xx.xxxx of the Senate of the Deggendorf Institute of Technology adopted by a circulation procedure and the regulatory approval of the Vice President of the Deggendorf Institute of Technology dated xx.xx.xxxx.

Signed by
Prof. Waldemar
Berg, Vice President

These by-laws were laid down on xx at the Deggendorf Institute of Technology. This was announced by means of a notice on xx. Day of announcement is therefore xx.