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Study and Examination Regulations for the Bachelor's Program in Digital Technology and Management at the *Ostbayerische Technische Hochschule Amberg-Weiden dated 02.06.2021

These program regulations are subordinate to and align with The General Study and Examination Regulations (ASPO) of the *East Bavarian Technical University of Applied Sciences Amberg-Weiden of 27.05.2020

Based on Art. 13 Para. 1 Sentence 2, Art. 43 Para. 4, Art. 58 Para. 1 Sentence 1 and Art. 61 Para. 2 Sentence 1 and Para. 8 of the Bavarian Higher Education Act of May 23, 2006 (GVBl S. 245., BayRS 2210-1-1-WFK), as amended, the East Bavarian University of Applied Sciences Amberg-Weiden issues the following statutes:

§ 1 Purpose of the study and examination regulations

The Study and Examination Regulations serve to complete and supplement the Framework Examination Regulations for Universities of Applied Sciences (RaPO) of October 17, 2001 (BayRS 22104141WFK-) and the General Study and Examination Regulations of the East Bavarian University of Applied Sciences Amberg-Weiden of May 27, 2020, as amended.

§ 2 Study objective

- (1) ¹The study program Digital Technology and Management comprises an interdisciplinary, international education in the intersection of information and communication technology, operational value creation processes and management in international companies and serves the acquisition of professional and interdisciplinary competencies. ² Subject-specific and interdisciplinary competency-oriented qualification goals are the ability to actively, critically, integratively and responsibly participate in planning, development, realization, implementation, marketing and procurement processes of digital technologies in internationally active manufacturing companies and in the service sector, an intercultural sensitization and the ability to work multilingually in English, German and, if necessary, in another language area. ³In addition, students are qualified to pursue a relevant master's degree.
- (2) To this end, graduates of the program possess a broad and integrated knowledge as well as a critical and application-oriented understanding of the most important theories, principles, methods and tools of product, innovation and lifecycle management, the core elements of smart products and basic IoT technology, communication technology, sensor technology, computer science, algorithms, databases and information systems, an object-oriented programming language, agile development methods and digital development tools as well as project management.
- (3) Graduates further possess a broad and integrated knowledge and understanding of the functions, interfaces and interactions of the operational value chain and the application and optimization possibilities of digital technologies and are also able to evaluate these economically with the help of the most important theories, principles, methods and tools of general business administration, business process management, internal and external accounting, logistics, industrial engineering and digital marketing.

- (4) ¹ Graduates are able to bring together concepts and methods from different disciplines and thus combine economic, technical as well as social and ethical aspects and processes across disciplines and functions. ² They are able not only to deepen this knowledge in an interdisciplinary manner, but also to develop and implement solutions for concrete, company-internal and company-external digitalization-related problems and to integrate them into innovative business models. ³In addition, graduates have their own initial research experience.
- (5) ¹Graduates are able to work both individually and as members of international and interdisciplinary groups, to organize projects effectively and implement them in an agile manner, and to grow into corresponding leadership roles. ²They are able to communicate and cooperate with other representatives of the field as well as with people from outside the field, taking into account cultural differences, at a target group-appropriate language level in the technical, business and academic context in English and have a knowledge of German at at least level B2 according to the Common European Framework of Reference for Languages or comparable.
- (6) ¹Due to the interdisciplinary nature of the degree program and typical digitization issues, the professional field extends to all corporate functions in the value chain of manufacturing companies, from research, development and engineering, to manufacturing and logistics, to marketing, sales and service, and support functions. ²With the appropriate choice of modules, graduates of the program can therefore find a wide range of job opportunities, especially in the areas of digitally supported or data-based after-sales, in key account management or sales of digital solutions, in technology purchasing, and especially in interface areas such as project management, product management, and corporate development.
- (7) Beyond the subject and methodological competencies, the study program is intended to convey joy in learning and in the creative application of knowledge, to promote the ability to criticize and reflect, and to encourage an attitude of responsibility in the profession and in society.

§ 3 Admission, standard period of study, start and structure of the study program

- (1) ¹ Applicants with a school leaving certificate from a foreign secondary school are recommended to submit a certificate of recognition of the school leaving certificate issued by a certified institution (e.g. uni-assist) by the end of the application period. ² The decision on admission to the study program is made by the examination board.
- (2) ¹ Students who have not acquired their university entrance qualification in the German language should increase their German language skills during the first two study sections in order to be qualified to enter the German labor market by the beginning of the practical study semester and to be able to complete the third study section partly in German, if they choose a German specialization module. ²To this end, students should use the Basic Electives 1-4 specified in more detail in the module handbook. ³In order to reach this level of language competence within the first two study sections, sufficient knowledge of the German language must already be proven at the beginning of the studies by means of a language certificate corresponding to level A2 according to the Common European Framework of Reference for Languages. ⁴Proof is not required if the university entrance qualification or an already acquired university degree was acquired in German.
- (3) ¹All applicants must additionally provide proof of English proficiency at B2 level according to the Common European Framework of Reference for Languages at the start of their studies. ²This proof can be provided by German students through the *Abitur* grade in English, alternatively by international applicants through a valid/current ALTE (Level 3), UNICert® II, Cambridge English (First/FCE), TOEFL (≥72), IELTS (5.0 or better), PTE Academic ≥(59) or TOEIC (≥785). confirming

English proficiency at B2 level. ³ Proof is not required if the university entrance qualification or an already acquired university degree was completed in English.

- (4) ¹ This bachelor's degree program is offered as a full-time program. ² The program has a standard period of seven study semesters with a total of 210 ECTS credits. ³ It includes a practical study semester.
- (5) A start of studies is possible in either the winter semester or summer semester.
- (6) The study program is divided into
- the first study section with semesters 1 to 2,
 - the second study section with semesters 3 to 4,
 - the third study section with semesters 5 to 7.
- (7) Detailed information about the structure of the study program and the time schedule (study plan) are found in the module handbook.

§ 4 Curricular structure, modules and credits

- (1) The study program has the following curricular structure:

Mathematics, computer science and research methodological principles	approx. 14%
Basic modules Digital Technology	approx. 14%
Basic modules Management	approx. 12%
Integrative modules	approx. 17%
Languages and soft skills	approx. 17%
Specialization modules	approx. 9%
Practice (Practical phase/internship phase)?	approx. 12%
Bachelor thesis	approx. 5%

- (2) ¹ The modules, their ECTS points and number of hours, the type of courses, as well as the examinations and course-related certificates of achievement are specified in the appendices to these Statutes. ² The corresponding regulations for the elective modules are defined in the module handbook.
- (3) ¹ The learning objectives and contents of the compulsory modules and the practical semester are specified in the module handbook. ² The compulsory elective modules serve to deepen the content of the compulsory modules.
- (4) ¹ There is no entitlement to all compulsory elective modules and elective modules being offered in any semester. ² Similarly, there is no entitlement to courses being held if there is an insufficient number of participants.
- (5) One ECTS point usually corresponds to a working time of 30 hours.

§ 5 Practical semester

- (1) ¹ The practical semester is conducted as the fifth semester of study and requires 20 weeks of practical work experience. ² The practical semester is supervised by the university and is supplemented by practical courses. ³ The practical semester is considered successfully completed if

1. the completion of practical work experience in the company is evidenced by a certificate issued by the internship firm that corresponds to the model provided by the university, and
 2. the mandatory practical semester report has been submitted and recognized.
- (2) Students who have acquired their university entrance qualification outside Germany are recommended to complete the internship in Germany, ideally in a company with an international orientation. German students are recommended to complete the internship in a non-German-speaking country.

§ 6 Study plan and module handbook

- (1) ¹In addition to the study and examination regulations, the Faculty of Industrial Engineering and Healthcare shall prepare a module handbook and a study plan, which shall be adopted by the Faculty Council and made public to the university student body. ² The announcement of new regulations shall be made at the latest at the beginning of the lecture period of the semester which they affect for the first time.
- (2) ¹ The modules as well as the associated study and examination requirements are described in the module handbook. ² The module handbook contains in particular the following information on the individual modules:
- a) Name/description of the module (German/English)
 - b) Frequency of the offer
 - c) ECTS points (incl. distribution of workload)
 - d) Lecturer/Convenor
 - e) Prerequisites
 - f) Learning objectives
 - g) Teaching content
 - h) Study and examination requirements
 - i) Instruction and examination language in the individual modules (English or German)
 - j) Recognition of the course in the program or in other university programs.
- (3) ¹ The course of study is described in the study plan. ² The study plan contains the following information:
- a) Timing of the study program, chronological order of the modules
 - b) Number of attendance hours (SWS) per module
 - c) ECTS points per module

§ 7 Study progression

- (1) ¹ By the end of the second semester, examinations in the following modules must be taken for the first time (Fundamentals and Orientation Examinations according to § 8 para. 2 sentence 1 Framework Examination Regulations for Universities of Applied Sciences):
- Algorithms and Data Structures
 - IoT Technology
 - Fundamentals of Business Administration
- ² If the aforementioned examinations have not been taken by this date, they shall be deemed to have been taken and failed for the first time.
- (2) Entry into the second stage of studies requires that at least 42 ECTS points have been achieved in the modules of the first stage of studies.
- (3) ¹ Entry into the third study section requires that all modules of the first study section have been passed. ² In order to assure sufficient language skills to complete the practical study semester

as well as participation in all elective modules, some of which are offered in German, proof of sufficient knowledge of the German language must also be provided in the form of a language certificate corresponding to level B2 according to the Common European Framework of Reference for Languages. ³Proof is not required if the university entrance qualification or the university degree was acquired in German.

- (4) In justified exceptional cases, the department's board of examiners may permit deviation from the standard study program upon request.

§ 8 Program counseling

Students who have not earned at least the number of ECTS credits designated for the first semester of study at the end of the second semester of study should see the faculty advisor.

§ 9 Bachelor thesis

- (1) The Bachelor thesis may be registered at the earliest in the first study semester following the practical study semester and should be handed out at the latest one month after the beginning of the second study semester following the practical study semester.
- (2) ¹ The processing time for the Bachelor thesis is five months. ²It can be extended by two months by the examination board if the reasons for the extension are not the responsibility of the respective student.
- (3) The Bachelor thesis must be written in either German or English.

§ 10 Evaluation of examination performances and overall program grade

- (1) For each module that has been evaluated with at least the grade "sufficient" as well as for the bachelor thesis that has been evaluated with at least the grade "sufficient", the ECTS points according to Appendix 1 are awarded in full.
- (2) The study program is successfully completed when all study and examination requirements have been successfully achieved.
- (3) The overall report grade is the weighted average of the individual module grades with the weights given in Appendix 1.

§ 11 Academic degrees

- (1) On the basis of the successful completion of the Bachelor's examination, the academic degree Bachelor of Science, abbreviated as B.Sc. is awarded.

§ 12 Examination commission

The examination board responsible for the study program is the examination board of the Faculty of Industrial Engineering and Healthcare with one chairing member and two additional members appointed by the Faculty Council.

§ 13 Entry into force

These study and examination regulations shall come into force with effect from 01. October 2021 and shall apply to students who commence their studies in the winter semester 2021/2022 or later.

Amberg, 02. June 2021

Prof. Dr. Andrea Klug
President

The study and examination regulations for the Bachelor's degree program Digital Technology Management at the East Bavarian* University of Applied Sciences Amberg-Weiden were set down 02. June 2021 at the East Bavarian University of Applied Sciences Amberg-Weiden in Amberg and Weiden. The declaration was announced formally on 02. June 2021. The day of the announcement was 02. Juni 2021

Appendix 1: Modules and Examinations in the Bachelor's Degree Program Digital Technology and Management

1	2	3	4	5	6	7
No.	Module name	ECTS points	SWS	Type of Teaching event	Module examination ²⁾	Weight for exam overall grade
	Study section 1					
1.1	Mathematics	5	4	SU/Ü	Cl 90	1
1.2	Algorithms and Data Structures	5	4	SU/Ü	Cl 90	1
2.1	IoT Technology	5	4	SU/Ü	Cl 90	1
2.2	Product Management	5	4	SU/Ü	ModA	1
3.1	Fundamentals of Business Administration	5	4	SU/Ü	Cl 90	1
3.2	Principles of Accounting and Finance	5	4	SU/Ü	Cl 90	1
3.3	Business Processes Management	5	4	SU/Ü	Cl 90	1
5.1	English for Academic Purposes	5	4	SU/Ü	ModA	1
5.2	Technical English	5	4	SU/Ü	ModA	1
5.3	Intercultural Communication	5	4	SU/Ü	ModA	1
5.4+5.5	Basic Elective 1+2 (Program-specific elective catalog) ¹⁾	5 each	4 each	SU/Ü or Sem or Proj	Kl or ModA or Pres or mdlP	1 each
	Total ECTS / SWS	60	48			

1	2	3	4	5	6	7
No.	Module name	ECTS points	SWS	Type of Teaching event	Module examination ²⁾	Weight for exam overall grade
	Study section 2					
1.3	Object-oriented coding	5	4	SU/Ü	ModA	1
1.4	Statistics and Quantitative Methods	5	4	SU/Ü	Cl 90	1
1.5	Information Systems and Databases	5	4	SU/Ü	Cl 90	1
2.3	Sensors for Smart Systems	5	4	SU/Ü	Cl 90	1
2.4	Communication Technology	5	4	SU/Ü	Cl 90	1
2.5	Production Technology	5	4	SU/Ü	Cl 90	1
3.4	Digital Marketing and eCommerce	5	4	SU/Ü	ModA	1
4.1	Project Management and Agile Methods	5	4	SU/Ü	ModA	1
4.2	Logistics 1	5	4	SU/Ü	Cl 90	1
4.3	Industrial Engineering	5	4	SU/Ü	Cl 90	1
5.6+5.7	Basic Elective 3+4 (program-specific elective catalog) ¹⁾	5 each	4 each	SU/Ü or Sem or Proj	Kl or ModA or Pres or mdlP	1 each
	Total ECTS / SWS	60	48			

1	2	3	4	5	6	7
No.	Module name	ECTS points	SWS	Type of Teaching event	Module examination ²⁾	Weight for exam overall grade
	Study section 3					
1.6	Research and Evaluation Methods	5	4	SU/Ü	ModA	1
2.6	Innovation and Technology Lifecycle Management	5	4	SU/Ü	ModA	1
3.5	Business simulation	5	4	SU/Ü	ModA	1
4.4	Ethics in Business and Technology	5	4	SU/Ü	ModA	1
4.5	Entrepreneurial Project 1: Developing a Digital Solution	5	4	Proj	ModA	1
4.6	Entrepreneurial Project 2: Business Plan for a Digital Product	5	4	Proj	ModA	1
4.7	Research Project	5	4	Proj	ModA	1
6.1-6.4	Specialization Elective 1-4 (Program Specific Elective Catalog) ¹⁾	5 each	4 each	SU/Ü or Sem or Proj	Kl 90 or ModA or Präs or mdlP	1 each
7.1	Internship	25		PP	PrB	0
8.1	Bachelor Thesis	10		BA	BA	4
	Total ECTS / SWS	90	44			

¹⁾ Program-specific elective modules:

Each of these is a module group with several elective modules, for each of which ECTS points are acquired upon successful completion of the respective module. In total, the ECTS points defined in the SPO must be acquired for each group.

Elective modules for teaching subject/methodological competencies have a close subject-related connection to the degree program and support the acquisition of subject and methodological competencies in selected areas (cf. HQR of 16.02.2017). These are mapped in the module catalog, which is integrated in the module handbook and must be approved by the Faculty Council.

Elective modules for teaching social/self-competencies serve to teach and deepen interdisciplinary competencies and qualifications (cf. HQR dated 16.02.2017).

The detailed qualification objectives of the elective compulsory modules result from the respective module descriptions.

²⁾ Module examinations can be supplemented on a voluntary basis via a bonus system (see General Study and Examination Regulations (ASPO) of OTH Amberg-Weiden).