

**Study and Examination Regulations for the
Bachelor Programme
(Bachelor of Science, B.Sc.)
Health Informatics
at the Deggendorf Institute of Technology
dated 01. October 2017**

On the basis of article 13 para 2 clause 2, 58 para 1, 61 para 2 clause 1 of the Bavarian University and College Act (BayHSchG) of 23rd May 2006 (BayRS 2210-1-1-WFK), last amended by § 1 of the act of 13.12.2016 (GVGl. Page 369), the Deggendorf Institute of Technology enacts the following bye-laws:

**§ 1
Aim of the study programme**

¹The aim of the Bachelor programme is to train information scientists to handle relevant issues in health care and in the healthcare sector based on knowledge in the fields of information technology, science, technology and management. ²The Bachelor study programme "Health Informatics" imparts knowledge and skills to design information systems for health care and the health care sector, and to develop, configure, operate and deploy them within the law. ³Specifically, the students acquire:

- comprehensive expertise in health informatics that enable them, among other things, to directly solve problems in the facilities, institutions and organisations involved in health care and in the health care sector,
- social and methodical skills that allow them to act confidently and competently in a complex, multi-professional and inter-cultural environment.

⁴The Bachelor programme Health Informatics fundamentally enables scientifically based and, likewise, ethically reflected action and work on the basis of a systemic approach. ⁵ The integrated practical study semester also serves the same purpose, by means of which the place of training is relocated to selected institutions and organisations in health care and in the health care sector, in close cooperation with the Deggendorf Institute of Technology.

⁶Applicability is of special importance in attaining the outlined qualification goals.

⁷The application and implementation

of scientific knowledge in relation to the specific, current problems in health informatics is ensured by practical training in various areas of application. ⁸This course structure gives the students an early opportunity to gain in-depth knowledge of their technical field in a process-oriented and inter-disciplinary manner in an area of application.

§ 2

Structure of the course, Standard period of study

- (1) The course of study involves a standard period of study of seven semesters, comprising six theory semesters and one practical semester.
- (2) ¹Two semesters are devoted to imparting instruction in the general principles of the basic sciences of Informatics, Economics and Natural Sciences. ²Building on this, there follows an in-depth study of the application areas of health informatics to prepare for the practical semester in the fifth semester. ³ Specialisation and sector-specific orientation takes place in the last two semesters by the selection of fields of expertise.
- (3) The courses and exams are conducted in English.

§ 3

Proof of language skills

¹The study program is conducted in English, which is why English language proficiency must be demonstrated at level B2 of the Common European Framework of Reference for Languages of the Council of Europe. ²The proof shall be provided by presentation of the respective certificate / certificate of by presentation of the sheet or other evidence (eg university entrance qualification in the language concerned) which is equivalent to those already mentioned. ⁴The examination commission of the Language Center decides on the equivalence of other proofs. ⁵The certificate cannot be older than two years.

§ 4

Module, overview of lecture hours and examinations

- (1) ¹The compulsory and elective modules, the number of hours for these, the type of lectures, the examinations, as well as the ECTS points, have all been fixed in the attachment to these bye laws. ²All modules are either compulsory modules or elective modules. ³ Compulsory modules are those modules of the study course which are mandatory for all students. ⁴Elective modules are those modules that are offered as part of the optional areas of application. ⁵The students have to select application areas in accordance with these study and examination regulations. ⁶This selection determines the elective modules

to be completed, which are then regarded as compulsory modules.

§ 5 Curriculum

- (1) ¹The faculty responsible, the Faculty of Applied Health Sciences, will prepare a curriculum so as to confirm the courses offered and to inform the students.
² It is determined by the faculty board and publicly announced at the institute.
³ The announcement of new regulations has to take place by the beginning of the lecture period of the semester which they relate to for the first time.
⁴ In particular, the curriculum contains regulations and information regarding
1. the allocation of time for the weekly hours during the semester per subject and per semester,

2. the objectives of study and the course contents,
 3. detailed specifications concerning the duration of the individual examinations,
 4. the training programme for the practical study semester,
 5. the elective modules in the application areas along with the number of hours and the type of lectures, as well as the objectives of study and course contents of these modules.
- (2) ¹No right exists that all the planned elective courses actually be offered. ²Likewise, no right exists that the related lectures take place in the case of an insufficient number of students.

§ 6

Test in fundamentals and orientation

By the end of the second semester, the students must have taken the examinations in the following modules for the first time:

Foundation of Sciences (G-04) and
Foundation of Informatics (G-03) and
Software Development (G-08).

§ 7

Admission to the practical study semester and further studies

- (1) ¹Attaining a minimum of 100 ECTS points based on the course of study so far is a prerequisite for admission to the 5th subject-specific semester (practical study semester). ²The limit is not applicable if the departmental student advisory service recommends otherwise in individual cases.
- (2) Passing the practical study semester and attaining at least 120 ECTS points is a prerequisite for taking the concluding modules with sector-specific orientation.

§ 8

Departmental student advisory service

- (1) Students who have not attained 60 ECTS points by the end of the third subject-related semester are obliged to consult the departmental student advisory service.
- (2) Students who have not attained 100 ECTS points prior to entering the practical study semester are obliged to attend the departmental student advisory service.

§ 9
Practical study semester

- (1) The practical study semester comprises at least 20 weeks.
- (2) The person in charge of the practical training has to be available to advise the students.
- (3) ¹The interrelations and skills learnt in the practical study semester have to be documented in a written practical training report. ²The practical training report has to be handed over to the person in charge of the practical training.

§ 10
Bachelor thesis

- (1) In the Bachelor thesis, the students have to prove their ability to be able to independently apply the knowledge and skills gained during their studies to complex tasks.
- (2) Anybody who has attained at least 160 ECTS points can register for the Bachelor thesis.
- (3) The Bachelor thesis has to be prepared within 4 months.

§ 11
ECTS points, overall grade

- (1) ECTS points are awarded, in accordance with the attachment, for successfully completed examinations in the compulsory and elective modules.
- (2) ¹The overall grade is calculated by a weighted arithmetic average of the individual grades. ²The weight of an individual grade is the same as the number of ECTS point allocated to the subject for which the grade was awarded.
- (3) In addition to the overall grade in accordance with para 2, a relative grade based on the numerical value attained is shown according to the ECTS user guide as per regulations contained in § 8 para 6 of the general examination regulations of the Deggendorf Institute of Technology.

§ 12 Certificate

- (1) ¹A certificate is issued on passing the Bachelor examination, in accordance with the respective sample contained in the attachment to the general examination regulations of the Deggendorf Institute of Technology. ² The Bachelor examination certificate has to include the modules completed and final grades attained during the semester abroad, indicating the foreign institute in a footnote.
- (2) On successful completion of the Bachelor examination, the academic degree "Bachelor of Science", abbreviated, "B. Sc." is awarded.
- (3) A document regarding the award of the academic degree is issued, in accordance with the respective sample contained in the general examination regulations of the Deggendorf Institute of Technology.
- (4) ¹An English translation and a Diploma Supplement are enclosed with the document, which describe the essential course contents forming the basis of the degree, the course of studies, and the qualification acquired with this degree. ² The Diploma Supplement also shows the ECTS points for the optional modules.

§ 13 Coming into effect

These study and examination regulations come into effect on 01. October 2017.

Health Informatics				Category	Semester periods per week (SWS)							ECTS	Form of Course*	Type and Duration in minutes	
Overview of Modules- /Course Number, Module- and Course Description, Semester periods per week (SWS) and ECTS				Informatics	SWS	1. Sem. (WS)	2. Sem. (WS)	3. Sem. (WS)	4. Sem. (WS)	5. Sem. (WS)	6. Sem. (WS)				7. Sem. (WS)
				Mathematics/ Sciences											
				Health											
				General Foundations											
Modules Number	Course Number	Modules	Course												
G-01	G1101	Foundations of Medicine	Medicine for Non-Physicians	Health	2	2							5	SL, P, S	Written Examination 90 Min.
	G1102		Terminology and Classification		2	2									
G-02	G1103	Foundations of Mathematics and Statistics	Mathematics I	Mathematics/ Sciences	2	2							5	SL, P, S	Written Examination 90 Min.
	G1104		Statistics I		2	2									
G-03	G1105	Foundations of Informatics	Formal Languages, Data Structure and Algorithms	Informatics	4	4							5	SL, P, S	Written Examination 90 Min.
G-04	G1106	Foundations of Sciences	Physics	Mathematics/ Sciences	2	2							5	SL, P, S	Written Examination 90 Min.
	G1107		Biology and Chemistry		2	2									
G-05	G1108	Foundations of Law	Social Security Law	General Foundations	2	2							5	SL, P, S	Written Examination 90 Min.
	G1109		Liability Law		2	2									
G-06	G1110	AWP (Foreign Language I)	Foreign Language I ¹⁾	General Foundations	4	4							4	SL, P, S	Written Examination 90 Min.
G-07	G2101	General Business Administration and Accounting	General Business Administration and Accounting	General Foundations	4		4						5	SL, P, S	Written Examination 90 Min.
G-08	G2102	Software Development	Software Development	Informatics	2		2						5	SL, P, S	Written Examination 90 Min.
	G2103		Software-Engineering		2		2								
G-09	G2104	Databases	Database Design	Informatics	2		2						5	SL, P, S	Written Examination 90 Min.
	G2105		Database Programming		2		2								
G-10	G2106	Foundations of Health Informatics	Systems and Applications	Informatics	4		4						5	SL, P, S	Written Examination 90 Min.
G-11	G2107	Mathematics and Statistics	Mathematics II	Mathematics/ Sciences	2		2						5	SL, P, S	Written Examination 90 Min.
	G2108		Statistics II		2		2								
G-12	G2109	Compliance and Risk Management	Compliance and Risk Management	General Foundations	2		2						5	SL, P, S	RP (Research Paper)
	G2110		Data Protection and IT Security		2		2								
G-13	G2111	AWP (Foreign Language II)	Foreign Language II ¹⁾	General Foundations	2		2						2	SL, P, S	Written Examination 60 Min.
G-14	G2112	AWP	AWP	General Foundations	2		2						2	SL, P, S	CWC
Deepening															
G-15	G3101	Medical Documentation	Medical Documentation	Health	4			4					5	SL, P, S	Written Examination 90 Min.
G-16	G3102	Application Systems of Health Informatics	Telematics	Health	2			2					5	SL, P, S	Written Examination 90 Min.
	G3103		Medical Technology		2			2							

G-17	G3104	Clinical Information Systems	Medical- and Nursing Documentation System	Informatics	2				2					5	SL, P, S	Written Examination 90 Min.
	G3105		Data Protection and Data Security in Health Economy		2				2						SL, P, S	
G-18	G3106	Media Management	Content Management and Document-Engineering	Informatics	2				2					5	SL, P, S	RP (Research Paper)
	G3107		Human Factors		2				2					SL, P, S		
G-19	G3108	Innovation and Complexity Management	Innovation Management	General Foundations	2				2					5	SL, P, S	Written Examination 90 Min.
	G3109		Complexity Management		2				2					SL, P, S		
G-20	G3110	AWP (Foreign Language III)	Foreign Language III ¹⁾	General Foundations	4				4					4	SL, P, S	Written Examination 90 Min.
G-21	G4101	Medical Technology	Medical Technology	Health	4				4					5	SL, P, S	Written Examination 90 Min.
G-22	G4102	IT-Service Management	IT-Services in Health Economy	Informatics	2				2					5	SL, P, S	Written Examination 90 Min.
	G4103		IT Controlling		2				2					SL, P, S		
G-23	G4104	IT-Process Management	IT-Process Management	Informatics	2				2					5	SL, P, S	Written Examination 90 Min.
	G4105		Operations Research		2				2					SL, P, S		
G-24	G4106	Practice of Programming	Programming of Multimedia Systems	Informatics	2				2					5	SL, P, S	Written Examination 90 Min.
	G4107		Web-based Medical Documentation		2				2					SL, P, S		
G-25	G4108	Seminar: Current Aspects of Health Economy	Health Economics	Health	2				2					5	SL, P, S	Written Examination 90 Min.
	G4109		Current Aspects of Health Economy		2				2					SL, P, S		
G-26	G4110	AWP (Foreign Language IV)	Foreign Language IV ¹⁾	General Foundations	2				2					2	SL, P, S	Written Examination 60 Min.
G-27	G4111	AWP	AWP	General Foundations	2				2					2	SL, P, S	CWC
Practical Semesters																
G-28	G5101	Internship (18 weeks)	Internship (18 weeks)											26		
	G5102	Block Seminar to accompany the internship (PLV) 1	Block Seminar to accompany the internship (PLV) 1		2						2			2	P, S	CWC
	G5103	Block Seminar to accompany the internship (PLV) 2	Block Seminar to accompany the internship (PLV) 2		2						2			2	P, S	CWC
G-29	G6101	Social Processes and Communication	Social Processes and Communication	General Foundations	4							4		5	SL, P, S	RP (Research Paper)
G-30	G6102	Web-based Systems	Knowledge Management	Informatics	4							4		5	SL, P, S	Written Examination 90 Min.
G-31	G6103	IT-Projektmanagement	IT-Project Management	Informatics	2							2		5	SL, P, S	Written Examination 90 Min.
	G6104		Case Study IT-Project		2							2		SL, P, S		
G-32	G6105	Logistics in Healthcare	Hospital Logistics	Health	2							2		5	SL, P, S	Written Examination 90 Min.
	G6106		Logistics for Medical Technology and Medical Devices		2							2		SL, P, S		
G-33	G6107	Collaborative Systems	Computer-Supported Collaborative Work	Informatics	2							2		5	SL, P, S	Written Examination 90 Min.
	G6108		Groupware		2							2		SL, P, S		

FWP* (Subject-Scientific Compulsory Module) A Subject-Scientific Compulsory Module (FWP) must be selected from FWP-1, FWP-2 or FWP-3																
G-34	G6109	FWP-1* Evidence-based Medicine	Evidence-based Medicine	Health	4						4		5	SL, P, S	RP (Research Paper)	
G-35	G6110	FWP-2* Telematics in Health Economy	Telematics in Health Economy	Health	4						4		5	SL, P, S	RP (Research Paper)	
G-36	G6111	FWP-3* Data Analytics	Data Analysis and Data-Mining	Informatics	4						4		5	SL, P, S	RP (Research Paper)	
G-37	G7101	Managed Care	Managed Care	Health	4						4		5	SL, P, S	Written Examination 90 Min.	
G-38	G7102	IT-Organisation and Computer Center Management	IT-Organisation	Informatics	2						2		5	SL, P, S	Written Examination 90 Min.	
	G7103		Computer Center - Management		2						2	SL, P, S				
G-39	G7104	Seminar: Management and IT-Consulting in health service	Management and IT-Consulting	Informatics	4						4		5	SL, P, S	RP (Research Paper)	
G-40	G7105	Business Game: Medical Information Systems	Business Game: Medical Information Systems	Health	2						2		2	SL, P, S	Written Examination 90 Min.	
G-41	G7110	Bachelor Thesis		Informatics									12	Bachelor Thesis		
Total SWS (Semester periods per week) - students						142	24	28	24	24	4	24	14			
Total ECTS-Offer - faculty							29	34	29	29	30	30	29	210		

¹⁾ Die Module "Fremdsprache I - IV" sind aufsteigende Sprachkurse in einer Fachfremdsprache, die im Studienplan festgelegt wird. Studierende mit einer anderen Muttersprache als Deutsch haben statt der Module "Fremdsprache I bis IV" vier aufsteigende Sprachkurse in Deutsch (Deutsch I bis IV) mit der doppelten Stundenzahl (jeweils 4 Semesterwochenstunden) abzuschließen.

Abbreviations:

SL = Seminars style lesson
P = Practice exercises
S = Seminar
RP = Research Paper
CWC = Certificate of achievement