

**Course Manual**  
**Master's Degree Program**  
**Digital Health Management**  
Full-time model

**MSB Medical School Berlin**  
University of Applied Sciences and Medical University  
**Faculty of Health Sciences**

29<sup>th</sup> of April 2024

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## 1. Introductory explanations of the module manual

This module handbook for the master's program in Digital Health Management provides students and teachers with a transparent overview of the structure, processes and scope of work of the course. The module descriptions list the scope, learning objectives, exemplary content, and examination performance for orientation purposes.

Essential terms for making the module handbook understandable are explained below:

Admission requirements	The respective admission requirements for participation in a module can be found in the module description.
Semester	One semester lasts six months, two semesters each make up one academic year. After the lecture period, there is a lecture-free period and an examination period.
Credit Points (CP)	Credit Points (CP) are credit points that provide information about the amount of work required for a module. They are awarded in accordance with the European Credit Transfer System (ECTS). One CP corresponds to 30 working hours. The working hours consist of attending the courses and self-study (preparation and follow-up to the courses as well as exam preparation).
Semester hours per week (SHW)	Semester hours per week indicate the time required to attend a course or module per week and comprise a unit of 45 minutes.
Workload	The workload indicates the average workload of the entire module and is divided into contact study and self-study including exam preparation. 30 working hours are calculated per CP.
Examinations	Examinations are generally graded and must be passed for credit points to be awarded for a module. They are made in writing or orally. Written examinations are carried out through exams, coursework, project work and the master's thesis. Oral examinations include oral examination discussions, papers, and presentations.
Module responsible	The person responsible for the module designed the respective course didactically and methodically. However, he is not automatically the corresponding teacher.

## 2. The MSB profile

The profile of the MSB is characterized by interprofessional training in medicine, the health professions and all professions working in interdisciplinary teams on a health campus.

To this end, the MSB faculties pursue the implementation of an interdisciplinary university concept with a focus on health and medicine in teaching, research, and scientific training. The profile of the MSB consists of the interprofessional linking of university education, research, and the establishment of professional career paths for the health professions, including medicine.

The aim is to establish everyone involved in healthcare to work together in interprofessional teams through academic training in the healthcare professions and networking with the training of medical professionals in a common healthcare campus.

The existing structures of the faculties of health sciences and art, health, and social science as a university of applied sciences and the faculties of human sciences and medicine as a university will be used and further developed.

The faculties of Health Sciences and Art, Health, and Social Science work in a more application-oriented manner in teaching, research and academic further education and focus on practical relevance in their study programs from the very beginning. They offer degree programs leading to a college degree in part-time study models for working people and/or in full-time study models for school leavers.

The faculties of Human Sciences and Medicine have the status of a scientific college, which is equivalent to a university. They also work in an application-oriented manner in teaching, research, and further scientific training, but focus more on research in their study programs. They offer degree programs leading to university degrees in psychology, psychotherapy, medical education, and medicine in part-time study models for working people and/or in full-time study models for school leavers.

Specifically, this means, among other things, interprofessional training wards, shared skills labs, integrative curricula, and courses are the main focus of training at the MSB. The interlinking of theory and practice through the vertical and horizontal integration of course content from the first and second stages of study in human medicine, the initiation of joint cross-curricular and cross-faculty projects and the connection with multimedia as well as modern logistics are important pillars establishing the MSB profile. The further development of a genuine research profile with a focus on interdisciplinary health research is part of the overall concept of the MSB.

Another focus of implementing the university concept is the development of scientific career paths by supporting young talent from the first day of their training. To this end, rotation positions in medical training are being set up and doctoral opportunities and postdoctoral phases are being promoted. The MSB, in conjunction with its research clusters, sees strengthening scientific competence in the training of all health professions and medical professionals as a strategic task that is implemented consistently both vertically and horizontally.

### 3. Didactic commentary on the module descriptions

#### 3.1 Competence development and initiation

Skill development and initiation will be of particular importance in the 21st century, especially in the health professions. In the Lancet report “Education of Health Professionals for the 21st Century” from 2010 considers the historical upheaval in the healthcare system. Competency-driven approaches should be included in teaching and interprofessional and cross-professional learning should be promoted to overcome silo thinking and promote non-hierarchical collaboration in teams (Careum Foundation 2011). <sup>1</sup>To meet the challenges of the 21st century, educational strategies from the past century should not be continued (ibid.). The professional training of people in the healthcare sector is characterized by transformative learning. Transformative learning can be viewed as the highest level of the learning process (ibid.). Transformative learning also corresponds to Klafki's educational idea, who understands education “[...] as the ability for reasonable self-determination, which presupposes or includes the emancipation from external determination, as the ability for autonomy, for the freedom of one's own thinking and one's own moral decisions. That is precisely why self-activity [!] is the central form of implementation of the educational process.” (Klafki 2007 p. 19) <sup>2</sup>In his critical-constructive didactics, Klafki (ibid.) highlights four fundamental, both content-related and communication-related attitudes, attitudes, and skills, that are necessary to be able to act.

- Willingness and ability to criticize, including the willingness and ability to self-criticize. [...]
- Willingness and ability to argue, i.e. the effort to bring one's own positions and one's own criticism into the context of a conversation or a discourse with others in such a way that [!] understanding and critical examination is possible for the interlocutors. [...]
- Empathy in the sense of being able to see a situation, a problem, an action from the position of the other person affected by the matter. [...]
- [...] Networked thinking or connected thinking. [...]

Education should therefore be understood as an independently developed and personally responsible context, the ability for self-determination, co-determination, and the ability to show solidarity. (Klafki 2007)

Informative learning leads to declarative knowledge, formative learning to procedural knowledge and formative-transformational learning to situational knowledge, which becomes visible in the specific requirement situation through competent action in performance (Schenk, 2016).<sup>3</sup>

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<sup>1</sup> Careum Foundation. (2011). Translation of the Lancet Commission report. (Frenk J, Chen L, et al. Health professionals for a new century: transforming education to strengthen health systems in an interdependent world. 2010)

<sup>2</sup> Klafki, W. (2007). New studies on educational theory and didactics. Contemporary general education and critical-constructive didactics. 6th edition. Weinheim and Basel: Beltz

<sup>3</sup> Schenk, O. (2016). The connection between social competence and the sense of coherence among trainees in health and nursing professions. Dissertation. University of Witten/Herdecke. Witten

## Concept of competence

The module descriptions and the module handbook are based on Weinert's (2001)<sup>4</sup> concept of competence. Weinert describes competence as the...

“Cognitive abilities and skills available to individuals or which can be learned by them in order to solve certain problems as well as the associated motivational, volitional and social willingness and abilities in order to be able to use the problem solutions successfully and responsibly in variable situations.” (ibid. p. 27f)

Chomsky (1992)<sup>5</sup> complements the term competence with the term performance, understood as the observable behavior in which competence becomes visible.

Erpenbeck and Rosenstiel (2007)<sup>6</sup> also follow this view when answering the question of how competencies can be determined.

“[...] Obviously, competences can only be clarified based on actual performance – the application and use of competence. [...]” (ibid. Introduction p. XVIII)

## Qualifications framework for German university degrees

The module descriptions in the module manuals are based on the qualification framework for German university degrees (HQR)<sup>7</sup>, qualification level 1 for the bachelor's level and qualification level 2 for the master's level.

The “Qualification Framework for German University Degrees” (HQR) is based on the TUNING Project and the “Dublin Descriptors” developed by the Joint Quality Initiative in classifying the categories of acquired skills. It is the basis for the design of study programs and is used in the Program accreditation is used as a benchmark. The German Qualifications Framework (DQR) assigns all formal qualifications that can be acquired in Germany to eight levels. It is referred to and named in the HQR at levels 6, 7 and 8 when it comes to university qualifications it as the binding document for university degrees (www.hrk.de, n. p.)<sup>8</sup>

The HQR initially distinguishes between four competency categories, of which the first two are divided into further subcategories:

- Knowledge and understanding with the subcategories
  - Broadening knowledge
  - Deepening knowledge
  - Understanding of knowledge
- Use, application and generation of knowledge with the subcategories
  - Use and transfer
  - Scientific innovation
- Communication and cooperation
- Scientific self-image/professionalism

<sup>4</sup> Weinert, F. E. (2001). Comparative performance measurement in schools – a controversial matter of course. In FE Weinert (Ed.), *Performance measurements in schools*. Weinheim and Basel: Beltz

<sup>5</sup> Chomsky, N. (1992). *Aspects of syntax theory*. Berlin: Suhrkamp Verlag

<sup>6</sup> Erpenbeck, J. & von Rosenstiel, L. (2007). *Competence measurement manual. Recognizing, understanding and evaluating competencies in operational, educational and psychological practice*. 2nd Edition. Stuttgart: Schäffer-Poeschel

<sup>7</sup> German Qualifications Framework Working Group (AK DQR) (2011). *German qualifications framework for lifelong learning*

<sup>8</sup> <https://www.hrk.de/themen/studium/qualificationsFRAME/hqr-und-fqrs/> accessed on March 10, 2017

The analytical distinction between the categories used was made with awareness of the interdependence of the various aspects of competence and can be supported by the statement of Gnahs (2007).<sup>9</sup>

“A competency is the ability to successfully cope with complex requirements in specific situations. Competent action includes the use of knowledge, cognitive and practical skills as well as social and behavioral components (attitudes, feelings, values, and motivations). A competence, for example, is not reducible to its cognitive dimension; it includes more than that.” (ibid. p. 21f)

The corresponding requirement levels of the competence categories listed above at levels 1 (bachelor's level) and 2 (master's level) can be seen from the following overview in Table 1:

**Table 1:** Level 1 Bachelor level (HQR) and Level 2 Master level (HQR)<sup>10</sup>

Level 1 Bachelor level		Level 2 Master Level	
Knowledge and understanding		Knowledge and understanding	
Broadening knowledge:	Deepening knowledge:	Broadening knowledge:	Deepening knowledge:
The knowledge and understanding of graduates builds on the level of the university entrance qualification and goes beyond this essential level. Graduates have demonstrated a broad and integrated knowledge and understanding of the scientific foundations of their field of study.	Graduates have a critical understanding of the key theories, principles and methods of their study program and can deepen their knowledge vertically, horizontally and laterally. Their knowledge and understanding corresponds to the state of the specialist literature but should also include some in-depth knowledge of the current state of research in their field of study.	Master's graduates have demonstrated knowledge and understanding that builds on the bachelor's level and significantly deepens or expands it. Graduates can identify special features, define and interpret the boundaries, terminology and doctrines of their learning area.	The knowledge and understanding of graduates forms the basis for the development and/or application of independent knowledge. This can be application- or research-oriented. They have a broad, detailed and critical understanding of the latest knowledge in one or more special areas.
Understanding of knowledge		Understanding of knowledge	
Graduates reflect on the epistemologically based correctness of technical and practice-relevant statements in a situation-related manner. These are seen in relation to the complex context and critically weighed against each other. Problems are solved with technical plausibility against the background of possible connections.		Graduates weigh up the technical, epistemologically based correctness, considering scientific and methodological considerations, and can use these considerations to solve practice-relevant and scientific problems.	
Use, application and creation of knowledge		Use, application and creation of knowledge	
Graduates can apply knowledge and understanding to a job or profession and develop or further develop solutions to problems in their specialist area.		Graduates will also be able to apply their knowledge, understanding and problem-solving skills in new and unfamiliar situations that have a broader or multidisciplinary context to their field of study.	
Use and transfer:	Scientific Innovation:	Use and transfer:	Scientific Innovation:
Graduates		Graduates	
<ul style="list-style-type: none"> <li>collect, evaluate and interpret relevant information, particularly in their study program;</li> <li>derive scientifically based judgments;</li> <li>develop approaches to solutions and implement solutions that correspond to the state of the art;</li> <li>carry out application-oriented projects and contribute to solving complex tasks in a team;</li> </ul>	<ul style="list-style-type: none"> <li>derive and define research questions;</li> <li>explain and justify operationalization of research;</li> <li>apply research methods;</li> <li>present and explain research results.</li> </ul>	<ul style="list-style-type: none"> <li>integrate existing and new knowledge in complex contexts, even on the basis of limited information;</li> <li>make scientifically based decisions and critically reflect on possible consequences;</li> <li>acquire new knowledge and skills independently;</li> <li>carry out application-oriented projects largely self-directed or autonomously.</li> </ul>	<ul style="list-style-type: none"> <li>design research questions;</li> <li>choose concrete ways of operationalizing research and justify them;</li> <li>select research methods and justify this selection;</li> <li>explain research results and interpret them critically.</li> </ul>

<sup>9</sup> Gnahs, D. (2007). Competencies – acquisition, recording, instruments. Bielefeld: Bertelsmann

<sup>10</sup> [https://www.hrk.de/fileadmin/redaktion/hrk/02-Documents/02-03-Studium/02-03-02-Qualifications Framework/2017\\_Qualifications Framework\\_HQR.pdf](https://www.hrk.de/fileadmin/redaktion/hrk/02-Documents/02-03-Studium/02-03-02-Qualifications Framework/2017_Qualifications Framework_HQR.pdf), accessed on April 4, 2017



<ul style="list-style-type: none"> <li>independently design further learning processes.</li> </ul>			
<b>Communicative skills</b>		<b>Communicative skills</b>	
Graduates		Graduates	
<ul style="list-style-type: none"> <li>formulate technical and fact-related problem solutions within their actions and can justify these with theoretically and methodologically sound arguments in discourse with specialist representatives and non-specialists;</li> <li>communicate and cooperate with other specialist representatives and non-specialists in order to solve a task responsibly;</li> <li>reflect and take into account the different perspectives and interests of other participants.</li> </ul>		<ul style="list-style-type: none"> <li>to communicate their conclusions and the underlying information and motivations to specialists and laypeople in a clear and unambiguous manner based on the current state of research and application.</li> <li>to exchange information, ideas, problems and solutions at a scientific level with specialist representatives and laypeople</li> <li>to take on prominent responsibilities in a team</li> </ul>	
<b>Scientific self-image/professionalism</b>		<b>Scientific self-image/professionalism</b>	
graduates		graduates	
<ul style="list-style-type: none"> <li>develop a professional self-image that is oriented towards the goals and standards of professional action in professional fields that are primarily outside of science;</li> <li>justify their own professional actions with theoretical and methodological knowledge;</li> <li>can assess their own abilities, autonomously reflect on relevant creative and decision-making freedoms and use these under guidance;</li> <li>Recognize the framework conditions for professional action in an appropriate manner and justify their decisions ethically</li> <li>reflect critically on their professional actions in relation to social expectations and consequences.</li> </ul>		<ul style="list-style-type: none"> <li>develop a professional self-image that is oriented towards the goals and standards of professional action both in science and in professional fields outside of science;</li> <li>justify their own professional actions with theoretical and methodological knowledge and reflect on them with regard to alternative designs;</li> <li>assess their own abilities, use relevant freedom of design and decision-making autonomously and develop these further under guidance;</li> <li>recognize the framework conditions for professional action in an appropriate and cross-situational manner and reflect on decisions in a responsible and ethical manner;</li> <li>critically reflect on their professional actions in relation to social expectations and consequences and further develop their professional actions.</li> </ul>	

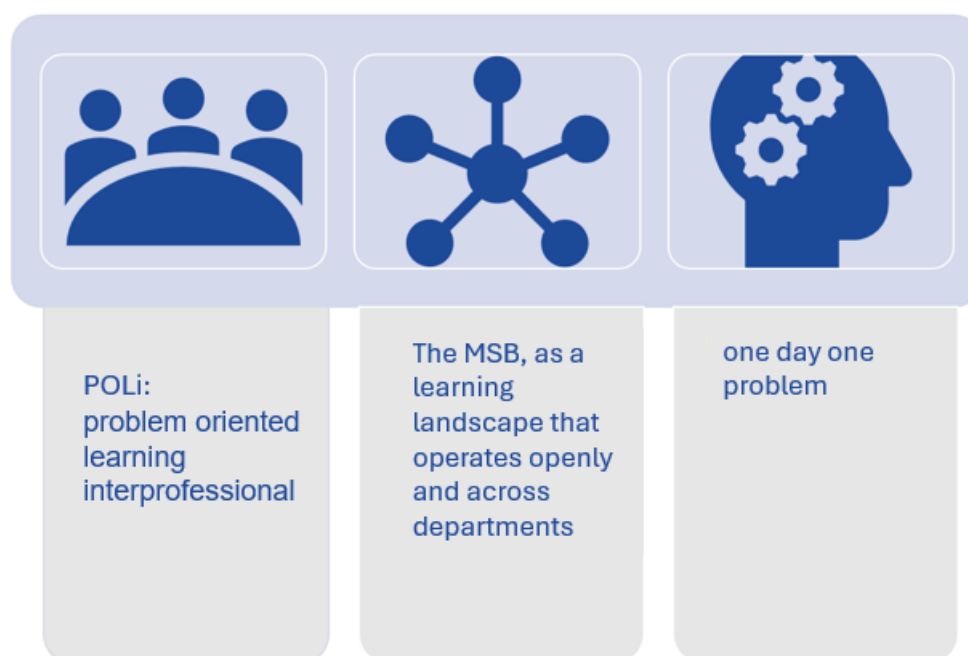
### 3.2 Link with the interdisciplinary and interprofessional university concept

The principle of cross-faculty and cross-curricular teaching in health-related courses with the aim of horizontal and vertical curricular linkage, as presented in the interdisciplinary and interprofessional university concept, is considered in the module descriptions. Because this interlinking is organizationally demanding and the number of hours is not uniform and the skills and content do not match exactly, the references to the possibility of linking individual modules do not mean that the modules are taught 1:1 across study programs. Rather, certain parts of different modules can be prepared in such a way that *module parts* can then be taught in combination with several degree programs to promote interprofessional skills. Another approach to implementing the interdisciplinary and interprofessional university concept consists in bringing together study programs for presentations/project development and in guided professional field exploration, which includes assignments for criteria-guided observation and reflection of interprofessional aspects in practice.

Another university didactic approach to promoting interprofessional competencies is “learning through teaching”. Students can convey the thematic focus of the linked modules, which are primarily disciplinary in their degree program, to students of other degree programs in well-prepared “interdisciplinary module islands”. In addition to content aspects, the awareness and appreciation of other health professions can be promoted. The implementation of the interdisciplinary and interprofessional university concept should initially take place in a pilot phase using three selected exemplary modules and, after evaluation and, if necessary, modification of the pilot model, the concept should be further implemented.



On interprofessional POLi days (**p**roblem **o**riented **l**earning **i**nterprofessional), which are held once per semester, makes the MSB an open learning landscape. Interprofessional learning can be experienced by students in a special dynamic in the diversity of existing study programs. Approximately 200 students work across departments in small, interprofessional groups using the POL (problem-oriented learning) learning format to solve a relevant problem in health care practice. They are accompanied by teachers specially trained as POLi tutors. The results will be presented in plenary session. Various problem solutions are to be expected, which are intended to stimulate and motivate discussions, exchange of ideas and further interactions. Important multipliers for dealing with further questions using POL are the trained tutors, but also the students themselves. The evaluation of these events should provide information about the potential that POLi has for implementing the MSB's interprofessional learning concept and what personal effects are perceived by teachers and students become.



**Figure 1** Interprofessional POLi day MSB

Aspects of interprofessional cooperation should be explicitly addressed in the practical professional modules of MSB degree programs. For this purpose, a uniform teaching unit is provided to prepare for interprofessional observation and reflection tasks on the topic of interprofessional cooperation, which is introduced in a training course.

In all research modules, the teachers also deepen interprofessional/interdisciplinary aspects and point out the desirability of choosing topics for project work from the area of interdisciplinarity/inter-professionality.

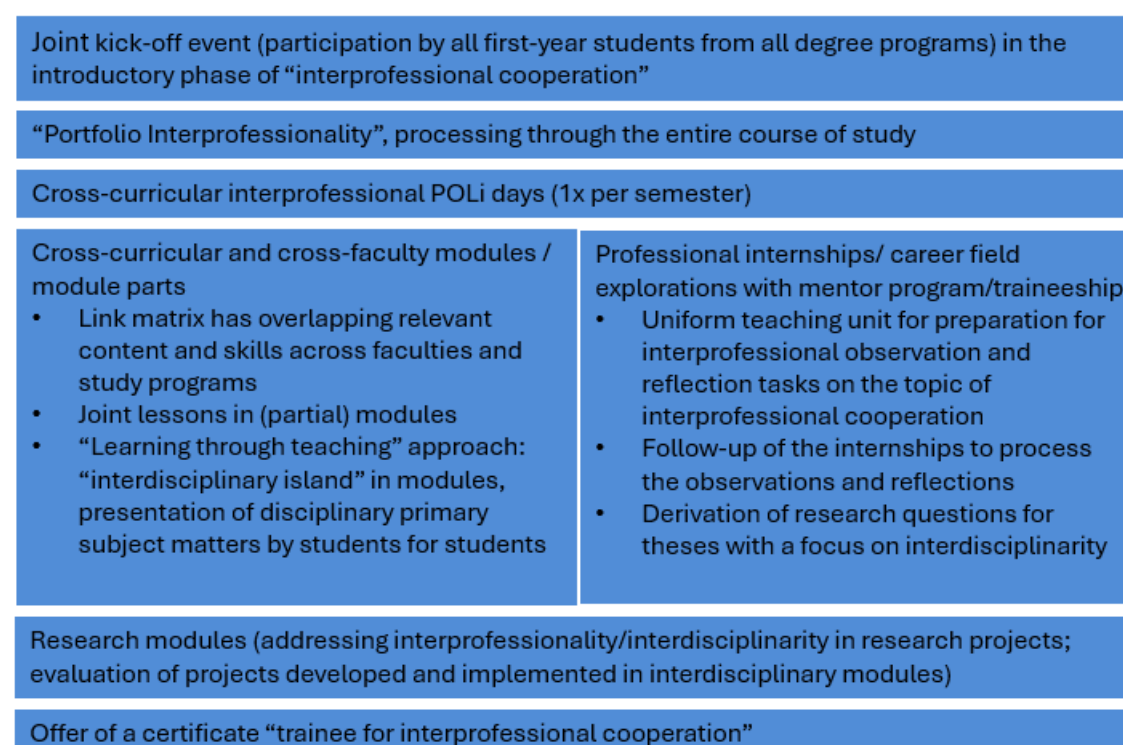
In order to implement the MSB's interdisciplinary and interprofessional university concept, the topic of "Interprofessional Cooperation" will be introduced to all first-year students in a cross-curricular and cross-faculty kick-off event from the summer semester of 2018 onwards. The kick-off event is structured as follows:

- Input from teachers, introduction to the topic
- Interactive methods for presenting different professions and courses of study
- Methods for making personal contacts (e.g. speed dating with the task of having met at least three students from other courses)
- Introduction to the “Interprofessionality Portfolio” (see below)

The “Portfolio Interprofessionality” should be worked on throughout the time of the course with regard to the systematically offered interprofessional and interdisciplinary teaching-learning arrangements as well as with regard to informal experiences, observations and reflections. All teachers are trained on this portfolio to work towards its continuation in their courses (particularly for content and skills that are expressly identified as interprofessional or supra-professional).

Extracurricular lectures are organized on an ongoing basis, in which all MSB students are expected to take part. As an additional extracurricular offer, a certificate module “Trainer for Interprofessional Competencies” is being developed, which is also open to all MSB students.

The outlined approaches to implementing the interprofessional and interdisciplinary university concept are summarized in Figure 2.



**Figure 2** Building blocks of an interdisciplinary and interprofessional university concept

## 4. The Master's degree program in Digital Health Management

### ***Objectives of the course***

By completing the master's program in Digital Health Management (M.Sc.), graduates acquire an in-depth qualification in information technology, economics and health sciences. This enables graduates to take on demanding applied information technology projects and tasks in the healthcare system based on scientific methods and knowledge, as well as to shape the digitalization of the healthcare industry. Scientific and data-based methods lead to evidence-based solutions. Practice-oriented projects ensure early practical relevance and prepare graduates for digitalization tasks in the healthcare industry, in healthcare service facilities and in the area of healthcare administration.

The concept of the course is interdisciplinary and interprofessional from the outset and is therefore closely based on the mission statement of the Medical School Berlin. This approach is already evident in the entry requirements. Students with degrees in economics, health and IT have access. The reason for this approach is the observation in practice that the transformation of information and decision-making processes in the healthcare system requires skills from the disciplines mentioned. None of the disciplines mentioned and none of the professions working in the healthcare sector will be able to achieve digital health implementation on their own. This shared understanding is made possible by this mindset alone.

This interdisciplinary and interprofessional approach then continues in the curriculum.

Through broad knowledge of the decision-making criteria for the selection of technological components and the teaching of methods in digital health, this knowledge acquired in the master's program is combined with the economic and technical skills. This gives graduates the ability to understand and evaluate patient-oriented and stakeholder-related relationships in the healthcare system from an information technology and health economics perspective, and to derive opportunities for digitalization from this. In addition, the students understand institutional and organizational features in the healthcare industry and become experts in the digital healthcare industry. The understanding of complex concepts and the content-conceptual work in the various sectors of the healthcare industry are part of her repertoire, as is the application of technological components to current and future developments in the healthcare system as well as critical reflection on the benefits of cost-effectiveness and quality. They can incorporate innovative knowledge of technologies and markets into the argument.

This approach gains a further facet through an elective subject that is offered in the third semester and allows the student to explore further areas of the health sector.

### ***Study content***

#### **Fields of competence**

The skills taught in the course are aimed at the qualification requirements for the master's level formulated in the qualification framework for German university degrees: knowledge, understanding and ability. The students broaden and deepen their knowledge. Building on an initial academic degree with a focus on health or economics, they internalize further scientific concepts and can critically reflect and evaluate them in the context of various professional fields. They are able to

apply the findings to new and unfamiliar situations in business practice and to independently deepen their knowledge and skills.

The students gradually develop a holistic view of the individual subject areas of value creation in the healthcare industry and are enabled to collect, evaluate, interpret and integrate relevant information in complex initial situations in order to derive scientifically based judgments and independently design further learning processes. Finally, the students acquire communication skills to be able to exchange ideas with experts in the scientific community as well as with professional practitioners.

Relevant modules have been designed for each field of competence, which enable the objectives of the master's degree to be achieved. The master's program in Digital Health Management is divided into 17 modules, which are assigned to the following areas of competence:

### ***General and specific professional skills***

As part of the general specialist skills, specific economic skills are taught based on skills already acquired. Module M1 "Business Models in the Digital Economy" looked at the general framework and examined the specifics of digital business models. The M2 "New Work & eLeadership" module focuses on the changed work and leadership structure in companies and the M3 "Digital Transformation & Agile Management" module looks at the change process of the company organization. For the competence field of specific specialist skills, topics are dealt with in depth in the context of the healthcare industry and with a view to industry-specific courses of action. The M4 module "eHealth (Application and Areas)" provides an understanding of technical applications and subject areas for the entire range of applications. The M5 "Data Management & Business Intelligence" module deals with the evaluation and analysis of large amounts of data and considers the possibilities of AI. In module M6 "eHealth (Technologies)" the technological foundations for the conception and design of digital processes are laid. Module M7 "Medical Diagnoses and Procedures" discusses technological applications in the processes of "diagnosis" and "therapy" and addresses relevant classification systems. The module M8 "Biomedical Ethics & Regulatory Affairs" examines the framework conditions of digitalization in the healthcare system and ethical conflicts. Module M11 "Health Economy" focuses on the performance and financial flows in the healthcare system against the background of a digital transformation. The cost bearers are examined in more detail. In addition, international system comparison is implemented in this subject.

The elective subject in module M15 serves to sharpen the students' profile. A corresponding catalog is available in the faculty.

### ***Professional field-related competence***

As part of the job-related management skills, students can practically apply their knowledge in various areas of activity to new and unusual issues in a company and master the necessary concepts and tools. The students apply their business knowledge and all the instrumental skills they acquired in the course to concrete practical projects. They will learn to develop economically viable and innovative business models in a team and to apply them in a targeted manner to a future market in the healthcare sector. In this context, students visit innovative companies and analyze their business models and engage in existing problems (M12 "Project: eHealth Business Development"). As part of the internship (M13 "Internship"), students are enabled to effectively apply the specialist knowledge they have acquired during their studies in professional practice and to independently carry out application-oriented projects.

Conversely, students can classify and critically evaluate the acquired practical experience into business concepts and to independently acquire new knowledge. At the end of the internship, the students have precise and comprehensive ideas about future professional activity in the breadth and depth of their field of study.

### ***Methodological and problem-solving skills, personal and social skills***

In addition to specialist knowledge, students acquire a variety of interdisciplinary key qualifications that are required for specialists and managers in all kinds of companies. The following areas of competence are deepened:

- ***Self-competence:*** Students are supported through their studies in further developing their personality. They have a realistic self-image and take a position on legally and ethically relevant economic issues in the context of economic views of humanity. The master's program also deepens the skills in self-organization, especially in time management and dealing with stress. At the end of their studies, students can assess their own strengths and weaknesses in order to decide on suitable fields of activity in professional practice based on their individual ideas, preferences and talents.
- ***Problem-solving skills:*** Students are enabled to remain capable of acting even in complex situations and to react flexibly and spontaneously to changing requirements and to develop creative solution options for new types of problems. The students learn to learn and can also analyze, understand, and generate solutions to novel interdisciplinary problems in practice with the help of the abstract concepts and models they have internalized during their studies. The students' creativity is also further developed, which is evident in all the modules in which new problems are solved innovatively with the help of specific management tools.
- ***Methodological competence:*** Students deepen their skills when dealing with relevant questions. They are proficient in scientific terminology and know the different schools of thought in the subject, they can read and understand complex texts, think deductively and inductively and are able to address scientific questions using appropriate research methods. They can collect, evaluate, and interpret information on selected topics and use mathematical and statistical methods to process this information if the subject suggests this (M16 "Research Methodology & Tutorial Master Thesis"). They can communicate with experts in the scientific community. They understand how knowledge is produced and evaluated in the science system. These skills are particularly relevant when writing the master's thesis (Module M17 Master's Thesis & Colloquium").
- ***Social skills:*** Students also deepen their soft skills, they strengthen empathy through diverse interactions with different people (professors, fellow students, superiors, colleagues), and they can resolve communication disorders through feedback and metacommunication. They develop their ability to deal with conflict and can contribute their expertise to team and group work. These social skills are particularly deepened in module M14 "Training Soft Skills".

## 5. Module overview

	Module Nr.	Modules	Weekl hours / semester				CP
			1. Sem.	2. Sem.	3. Sem.	4. Sem.	
General	M1	Business Models in the Digital Economy		3			5
	M2	New Work & eLeadership		3			5
	M3	Digital Transformation & agile Management		3			5
	<b>Summe</b>						<b>15</b>
Specific	M4	eHealth (Application and Areas: Professional centered)		3			5
	M5	Data-Management & Business Intelligence			3		5
	M6	eHealth (Technologies)	3				5
	M7	Medical Diagnosis and Procedures	3				5
	M8	Biomedical Ethics & Regulatory Affairs				3	5
	M9	Strategic Corporate Management	3				5
	M10	eHealth (Applications and Areas: Patient centered)			3		5
	M11	Health Economy		3			5
<b>Sum</b>						<b>40</b>	
Practical	M12	Project: eHealth-Business Development		3			5
	M13	Internship			Block		20
	<b>Sum</b>						<b>25</b>
Methodic	M14	Training Soft Skills	3				5
	M15	Elective Subject			3		5
	M16	Research Methodology & Tutorial Master Thesis			3		5
	M17	Master Thesis & Colloquium				2	25
	<b>Sum</b>						<b>40</b>
<b>Sum</b>			<b>12</b>	<b>18</b>	<b>12</b>	<b>5</b>	<b>120</b>

## 6. Module descriptions

<b>Study program:</b>	Digital Health Management - full-time model
<b>Module group:</b>	General professional competence
<b>Module:</b>	M1 – Business Models in the Digital Economy
<b>Module responsible <sup>11</sup>:</b>	Team of professors

<b>SHW</b>	3	<b>Contact study</b>	45	<b>Self-study</b>	105
<b>semester</b>	2	<b>Workload</b>	150	<b>ECTS</b>	5
<b>Usability of the module</b>	This module is offered to students of the master's program in Digital Health Management.				
<b>Duration and frequency</b>	1 semester, every 2nd semester				
<b>Participation requirements</b>	According to the standard course of study				
<b>Kind of event</b>	The teaching and learning events are offered in lecture and seminar form. As part of the lecture, the teaching and learning content is presented by the teachers and placed in a larger context. The learning context is prepared in such a way that students can build up and deepen their knowledge base. In the seminar, students				

<sup>11</sup>General remark: The term "module responsible" does not necessarily mean the teacher assigned to the module.



	work on practice-relevant topics independently, including using literature from one or more sources or using case studies. The teacher takes on the role of “learning coach” and accompanies the students in analyzing, discussing and reflecting on the teaching and learning content in smaller groups.
<b>Qualification goals/competencies</b>	After completing the course, students will be able to use different methods to evaluate existing business models and can develop their own digital business models in the healthcare sector for various applications. They understand digital change and can assess disruptive developments and analyze their consequences for established business models.
<b>Content of the module</b>	<p>The event is a basic module that helps to impart general specialist knowledge in the field of business administration. Specifically, it is about laying a foundation regarding business models and business processes in general and in the digital context of the healthcare industry in order to ensure connectivity with regard to business and management-oriented modules in the degree program.</p> <ul style="list-style-type: none"> <li>• Basics and special features of the digital economy</li> <li>• Overview of business models and business model patterns as well as business processes, especially in the areas of digital health</li> <li>• Methods for identifying the drivers for successful business models</li> <li>• Practical examples: Business models in the digital context of the healthcare industry</li> <li>• Business simulation game in groups</li> </ul>
<b>Forms of learning</b>	Lecture, seminar, presentations, case studies, group work, discussion
<b>Exam form</b>	Written assignment
<b>Recommendation for subject-related basic literature</b> (Note: Deviations are possible for different teachers)	Zhu, X. (2019): Emerging Champions in the Digital Economy: New Theories and Cases on Evolving Technologies and Business Models (Management for Professionals), Springer 2018.



Master's degree program in Digital Health Management  
 Degree: Master of Science

**Study program:** Digital Health Management - full-time model  
**Module group:** General professional competence  
**Module:** M2 – New Work & eLeadership  
**Module responsible:** Team of professors

<b>SHW</b>	3	<b>Contact study</b>	45	<b>Self-study</b>	105
<b>semester</b>	2	<b>Workload</b>	150	<b>ECTS</b>	5
<b>Usability of the module</b>	This module is offered to students of the master's program in Digital Health Management.				
<b>Duration and frequency</b>	1 semester, every 2nd semester				
<b>Participation requirements</b>	According to the standard course of study				
<b>Kind of event</b>	The teaching and learning events are offered in lecture and seminar form. As part of the lecture, the teaching and learning content is presented by the teachers and placed in a larger context. The learning context is prepared in such a way that students can build up and deepen their knowledge base. In the seminar, students work on practice-relevant topics independently, including using literature from one or more sources or using case studies. The teacher takes on the role of "learning coach" and accompanies the students in analyzing, discussing and reflecting on the teaching and learning content in smaller groups.				
<b>Qualification goals/competencies</b>	<p>The students know the basic elements of a model for forecasting and controlling work behavior, the central human resources processes, have knowledge of how to implement them, understand the specifics of human resources work in the health sector and can integrate these into their work. They can analyze their own value system and your own preferences and acquire knowledge about resilience and self-leadership.</p> <p>Furthermore, students learn scientific methods for assessing employee potential, are methodically qualified to carry out work tasks in core processes of human resources management and learn to strengthen personal protective factors and positively influence their own behavior in the long term. In addition, students can work with people who have different skills, learn to act calmly in conflict situations and in the interests of the company, deepen their skills in solving problems in collegial discussions and set individual priorities for in-depth work within the curricular framework.</p>				
<b>Content of the module</b>	<p>The course covers the constructs "cognitive skills", "personality" and "motivation" as well as the concepts "process orientation" and "leadership". Knowledge in the field of labor law is also integrated. As a basis for the constructs and knowledge mentioned, students in this course acquire basic soft skills, such as communication skills, the ability to work in a team and dealing with or solving problems in work design and leadership.</p> <ul style="list-style-type: none"> <li>• Overview of the operational field of human resources management based on basic definitions of terms and a process map</li> <li>• Basics of leadership</li> <li>• Leadership in the management process</li> <li>• Leaders: born or made?</li> <li>• Leadership vs Management</li> <li>• Economic and social success criteria for leadership</li> <li>• Leadership and Ethics</li> <li>• Classic leadership theories</li> </ul>				

	<ul style="list-style-type: none"> <li>• Selected New Leadership Approaches</li> <li>• Detailed representation of the steps of process functions (personnel planning, procurement, development and personnel release), as well as cross-sectional functions (personnel marketing)</li> <li>• Teaching selected techniques and skills for their practical implementation</li> <li>• Raising awareness of the influence of demographic change and introduction of new technologies (Industry 4.0)</li> <li>• Teaching scientific methods for assessing employee potential (competency model) with regard to cognitive abilities, personality and motivation</li> <li>• Representation of the specifics of healthcare organizations (i.e. "professional organizations" and external factors)</li> <li>• Transfer of knowledge and skills into the context of the health sector</li> <li>• Self-management and self-regulation as a requirement in a professional context as well as a critical examination of the concept of "New Work" (Bergmann/Väth):             <ul style="list-style-type: none"> <li>○ A conscious personal work-lifestyle ("Life Blending")</li> <li>○ A systemically oriented competency model of work-relevant skills</li> <li>○ A change model for organizations</li> </ul> </li> <li>• An intensive debate about the role of work in society and politics ("New Work Deal")</li> </ul>
<b>Forms of learning</b>	Seminar, presentations, case studies, group work, discussion
<b>Exam form</b>	Written assignment
<b>Recommendation for subject-related basic literature</b> (Note: Deviations are possible for different teachers)	Barr, J., & Dowding, L. (2015): Leadership in health care (2nd ed.). Los Angeles: SAGE. Furnham, A. (2008): Personality and intelligence at work: exploring and explaining individual differences at work. London; New York: Routledge. Howard, P. J., & Howaerd, J. M. (2010): The owner's manual for personality at work (2nd ed.). Charlotte, NC: The Center for Applied Cognitive Studies (CentACS).

**Study program:** Digital Health Management - full-time model  
**Module group:** General professional competence  
**Module:** M3 Digital Transformation & Agile Management  
**Module responsible:** Team of professors

<b>SHW</b>	3	<b>Contact study</b>	45	<b>Self-study</b>	105
<b>semester</b>	2	<b>Workload</b>	150	<b>ECTS</b>	5
<b>Usability of the module</b>	This module is offered to students of the master's program in Digital Health Management.				
<b>Duration and frequency</b>	1 semester, every 2nd semester				
<b>Participation requirements</b>	According to the standard course of study				
<b>Kind of event</b>	The teaching and learning events are offered in lecture and seminar form. As part of the lecture, the teaching and learning content is presented by the teachers and placed in a larger context. The learning context is prepared in such a way that students can build up and deepen their knowledge base. In the seminar, students work on practice-relevant topics independently, including using literature from one or more sources or using case studies. The teacher takes on the role of "learning coach" and accompanies the students in analyzing, discussing, and reflecting on the teaching and learning content in smaller groups.				
<b>Qualification goals/competencies</b>	<p>The students can name and explain the characteristics, procedures, and success factors according to which necessary changes are recognized and change processes are designed in modern organizations. They can describe typical tasks of managers to initiate and support change processes, especially when introducing new technical or digital applications, and change. They can develop ways to deal with resistance that arises among the affected stakeholders. The students recognize the special challenges of change management in an international environment and can accept and solve them in a fact-oriented manner.</p> <p>Based on the solution approaches taught in the course, students can analyze drivers and factors of change and understand change and transformation processes to be successful.</p> <p>Interdisciplinary skills:          The students can independently determine change requirements and derive constructive-critical recommendations for change topics. Through exercises in small group work, they deepen their teamwork, conflict, and communication skills. When working on a project (examination), they will learn to plan and organize change and transformation projects in an action-oriented manner as a team. They learn to take individual and collective responsibility for work results and to present and defend your solutions.</p> <p>Students also learn the methods and tools for effectively leading small and medium-sized change and transformation processes in agile teams and organizations.</p>				
<b>Content of the module</b>	<p><b>Basics of change and transformation management</b></p> <ul style="list-style-type: none"> <li>• Driving forces, strategies, and theories for mastering the change</li> <li>• Company maturity levels</li> </ul>				

	<p><b>Managing change and transformation projects</b></p> <ul style="list-style-type: none"> <li>• Typical transition processes in organizations</li> <li>• The role and behavior of people in change processes</li> <li>• Success and failure factors in change processes</li> <li>• Design of change and transformation processes</li> </ul> <p><b>The critical roles in the change process</b></p> <ul style="list-style-type: none"> <li>• Change Sponsor and Change Manager</li> <li>• Change agent and affected stakeholders</li> </ul> <p><b>Techniques and tools of change and transformation</b></p> <ul style="list-style-type: none"> <li>• Stakeholder management</li> <li>• Knowledge management</li> <li>• Selected organization and intervention techniques</li> <li>• English terminology of change management</li> <li>• Large group techniques</li> <li>• Collegial coaching</li> <li>• Design of rooms</li> <li>• Agile teams, self-organization, and Scrum processes</li> </ul> <p><b>Coping with emotional-psychological situations in the change process</b></p> <ul style="list-style-type: none"> <li>• Dealing with resistance</li> <li>• Way of dealing with power</li> </ul> <p><b>Communicate successfully in change processes</b></p> <ul style="list-style-type: none"> <li>• Media and methods of change communication</li> <li>• Communication processes</li> </ul>
<b>Forms of learning</b>	Seminar, presentations, case studies, group work, discussion
<b>Exam form</b>	Oral examination
<b>Recommendation for subject-related basic literature</b> (Note: Deviations are possible for different teachers)	Kerner, H. (2009) Project Management- a systems approach, New Jersey, 10 <sup>th</sup> edition Project Management Institute (Edit.) (2008) Project Management Body of Knowledge, 4 <sup>th</sup> edition, Atlanta

Master's degree program in Digital Health Management  
 Degree: Master of Science

**Study program:** Digital Health Management - full-time model  
**Module group:** Specific professional competence  
**Module:** M4 eHealth (Application and Areas – Professional centered)  
**Module responsible:** Team of professors

<b>SHW</b>	3	<b>Contact study</b>	45	<b>Self-study</b>	105
<b>semester</b>	2	<b>Workload</b>	150	<b>ECTS</b>	5
<b>Usability of the module</b>	This module is offered to students of the master's program in Digital Health Management.				
<b>Duration and frequency</b>	1 semester, every 2nd semester				
<b>Participation requirements</b>	According to the standard course of study				
<b>Kind of event</b>	The teaching and learning events are offered in lecture and seminar form. As part of the lecture, the teaching and learning content is presented by the teachers and placed in a larger context. The learning context is prepared in such a way that students can build up and deepen their knowledge base. In the seminar, students work on practice-relevant topics independently, including using literature from one or more sources or using case studies. The teacher takes on the role of "learning coach" and accompanies the students in analyzing, discussing and reflecting on the teaching and learning content in smaller groups.				
<b>Qualification goals/competencies</b>	<p>Students can explain and evaluate the various possible uses of digital technologies in healthcare. They will gain an understanding of the decision-making criteria for selecting technological components. They can analyze and evaluate all tools and services that use information and communication technologies and are used for prevention, diagnosis, treatment, monitoring, and management in the health sector. The students have acquired basic information technology skills to develop initial ideas for appropriate digitalization strategies.</p> <p>The learning objectives also include the application of technological components to current and future healthcare networks and critical reflection on the benefits as well as technical, ethical and data protection aspects. Emphasis is placed on solutions in which the citizen/patient will take an active part in healthcare in the future.</p>				
<b>Content of the module</b>	<ul style="list-style-type: none"> <li>• Telemedicine, mobile medical application for communication over long distances, regardless of physical presence</li> <li>• Computer-aided procedures for collecting and evaluating health data</li> <li>• Interfaces and interface communication</li> <li>• Performance characteristics</li> <li>• Data security and protection</li> <li>• eHealth applications &amp; application criteria</li> <li>• KIS, EFA, EPA, EGA</li> <li>• Home care/telemonitoring for different fields of application</li> <li>• AAL and other applications</li> <li>• Portals</li> <li>• Social media in healthcare</li> <li>• The role of the patient: Health Literacy, eHealth Literacy, Patient Empowerment</li> <li>• Acceptance (influences, strategies, etc.)</li> <li>• Introduction strategies</li> </ul>				

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<b>Forms of learning</b>	Seminar, presentations, case studies, group work, discussion
<b>Exam form</b>	Presentation
<b>Recommendation for subject-related basic literature</b> (Note: Deviations are possible for different teachers)	<ul style="list-style-type: none"><li>- The Digital Doctor: Hope, Hype, and Harm at the Dawn of Medicine's Computer Age by Robert Wachter</li><li>- The Creative Destruction of Medicine: How the Digital Revolution Will Create Better Health Care by Eric Topol</li><li>- Health Informatics: Practical Guide for Healthcare and Information Technology Professionals by Robert E. Hoyt and Ann K. Yoshihashi</li></ul>

**Study program:** Digital Health Management - full-time model  
**Module group:** Specific professional competence  
**Module:** M5 Data Management & Business Intelligence  
**Module responsible:** Team of professors

<b>SHW</b>	3	<b>Contact study</b>	45	<b>Self-study</b>	105
<b>semester</b>	3	<b>Workload</b>	150	<b>ECTS</b>	5
<b>Usability of the module</b>	This module is offered to students of the master's program in Digital Health Management.				
<b>Duration and frequency</b>	1 semester, every 2nd semester				
<b>Participation requirements</b>	According to the standard course of study				
<b>kind of event</b>	The teaching and learning events are offered in lecture and seminar form. As part of the lecture, the teaching and learning content is presented by the teachers and placed in a larger context. The learning context is prepared in such a way that students can build up and deepen their knowledge base. In the seminar, students work on practice-relevant topics independently, including using literature from one or more sources or using case studies. The teacher takes on the role of "learning coach" and accompanies the students in analyzing, discussing and reflecting on the teaching and learning content in smaller groups.				
<b>Qualification goals/competencies</b>	The students should understand the importance of information for a company, recognize and perceive it as critical success factors and be able to apply it to different markets. They will gain access to tools for determining information needs and designing information systems and will learn about the main application areas of eHealth, which includes the entire process from collection and processing to analysis and evaluation of specific digital health data. The graduates of the event know about the importance of IT for the management process and company success and learn to understand how business intelligence (BI) is integrated into company IT. They will gain knowledge of the basic architecture of BI systems and the ability to analyze and visualize data. After completing the course, students are also able to design smaller data cubes and create and evaluate them using appropriate software.				
<b>Content of the module</b>	<ul style="list-style-type: none"> <li>• Data acquisition and data analysis</li> <li>• Sampling procedure &amp; Statistical testing procedures</li> <li>• Basic procedures of multivariate data analysis</li> <li>• Time series analysis &amp; Analysis of variance</li> <li>• Factor analysis &amp; Cluster analysis</li> <li>• Multiple regression, logistic regression, etc</li> <li>• Introduction to Business Intelligence</li> <li>• Database basics Relational databases, SQL lab, normalization, multidimensional data modeling</li> <li>• Sales, inventory control, procurement, order management</li> <li>• Analytical information systems: OLAP laboratory, information visualization, dashboard laboratory, text mining, data mining</li> <li>• Big Data, Artificial intelligence, machine learning</li> <li>• Social media analysis</li> <li>• Business intelligence, controlling and statistics tools</li> <li>• Business applications (operational applications, applications for the management process (MIS; data warehouse)</li> </ul>				



Master's degree program in Digital Health Management  
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<b>Forms of learning</b>	Lecture, seminar, presentations, case studies, group work, discussion
<b>Exam form</b>	Written examination
<b>Recommendation for subject-related basic literature</b> (Note: Deviations are possible for different teachers)	Kimball, R.; Ross, M.: The Data Warehouse Toolkit: The Complete Guide to Dimensional Modelling, John Wiley & Sons, New York 2002. Few, S.: Information Dashboard Design, O'Reilly, Beijing 2009.

Master's degree program in Digital Health Management  
 Degree: Master of Science

**Study program:** Digital Health Management - full-time model  
**Module group:** Specific professional competence  
**Module:** M6 eHealth (Technologies)  
**Module responsible:** Team of professors

<b>SHW</b>	3	<b>Contact study</b>	45	<b>Self-study</b>	105
<b>semester</b>	1	<b>Workload</b>	150	<b>ECTS</b>	5
<b>Usability of the module</b>	This module is offered to students of the master's program in Digital Health Management.				
<b>Duration and frequency</b>	1 semester, every 2nd semester				
<b>Participation requirements</b>	According to the standard course of study				
<b>Kind of event</b>	The teaching and learning events are offered in lecture and seminar form. As part of the lecture, the teaching and learning content is presented by the teachers and placed in a larger context. The learning context is prepared in such a way that students can build up and deepen their knowledge base. In the seminar, students work on practice-relevant topics independently, including using literature from one or more sources or using case studies. The teacher takes on the role of "learning coach" and accompanies the students in analyzing, discussing and reflecting on the teaching and learning content in smaller groups.				
<b>Qualification goals/competencies</b>	Students have knowledge of medical technology and the roots of the technologies. They can recognize the different classes of medical devices and can assess the interaction of materials and tissues (biocompatibility). The students learn different areas of application of medical devices and their importance for therapies or diagnostics. The regulatory guidelines and laws for placing medical devices on the market can be named.				
<b>Content of the module</b>	<ul style="list-style-type: none"> <li>• Strategic and Operational information management (ICT selection process and ICT controlling)</li> <li>• Exemplary IT structures in the healthcare industry (personnel, systems, definitions, legal framework, data protection)</li> <li>• Technology management (hardware, networks, reinvestment)</li> <li>• Documentation and archiving</li> <li>• Subsystems and communication servers</li> <li>• Mobile Computing in Medicine:</li> <li>• Smartphones, tablets and health apps</li> <li>• Basics of database and information systems</li> <li>• Basics of data modeling</li> <li>• Basics of database query language (SQL)</li> <li>• Basics of data warehousing</li> <li>• Data presentation options</li> <li>• Basics of medical technology</li> <li>• Biocompatibility</li> <li>• Basics of tissue engineering</li> <li>• Process technologies for medical technology developments</li> <li>• Polymer/drug coating of surface-structured metallic materials</li> <li>• Medical textiles</li> <li>• Diagnostic medical technology and minimally invasive procedures</li> <li>• Endoscopy, minimally invasive surgery and navigated systems</li> <li>• Image analysis in medicine and biology</li> </ul>				

	<ul style="list-style-type: none"> <li>• Therapeutic medical technology</li> <li>• Use in cardiac diseases</li> <li>• Electrical phenomena of the body and their detection</li> <li>• Basics of kidney and liver dialysis</li> <li>• Applications in orthopedics</li> <li>• Implants for intervertebral disc replacement</li> <li>• Exoprosthetics</li> <li>• Dental materials</li> <li>• Machine-assisted surgery, mechatronics, and robotics</li> <li>• Quality management in medical technology</li> <li>• Medical documentation</li> <li>• Patient-specific documentation</li> <li>• Documentation of medical knowledge</li> <li>• Health reporting</li> </ul>
<b>Forms of learning</b>	Lecture, seminar, presentations, case studies, group work, discussion
<b>Exam form</b>	Written examination
<b>Recommendation for subject-related basic literature</b> (Note: Deviations are possible for different teachers)	<ul style="list-style-type: none"> <li>- The Patient Will See You Now: The Future of Medicine is in Your Hands by Eric Topol</li> <li>- Biotechnology for Beginners by Reinhard Renneberg</li> <li>- The Fourth Industrial Revolution by Klaus Schwab</li> </ul>

Master's degree program in Digital Health Management  
 Degree: Master of Science

**Study program:** Digital Health Management - full-time model  
**Module group:** Specific professional competence  
**Module:** M7 Medical Diagnoses and Procedures  
**Module responsible:** Prof. Ehsan Khaljani

<b>SHW</b>	3	<b>Contact study</b>	45	<b>Self-study</b>	105
<b>semester</b>	1	<b>Workload</b>	150	<b>ECTS</b>	5
<b>Usability of the module</b>	This module is offered to students of the master's program in Digital Health Management.				
<b>Duration and frequency</b>	1 semester, every 2nd semester				
<b>Participation requirements</b>	According to the standard course of study				
<b>Kind of event</b>	The teaching and learning events are offered in lecture and seminar form. As part of the lecture, the teaching and learning content is presented by the teachers and placed in a larger context. The learning context is prepared in such a way that students can build up and deepen their knowledge base. In the seminar, students work on practice-relevant topics independently, including using literature from one or more sources or using case studies. The teacher takes on the role of "learning coach" and accompanies the students in analyzing, discussing and reflecting on the teaching and learning content in smaller groups.				
<b>Qualification goals/competencies</b>	The students have knowledge in the areas of human functional anatomy, physiology, and pathophysiology. They can link the interaction of cells and tissues to organs and organ systems and to classify them into physiological and pathophysiological processes. Using common clinical diseases, students learn current therapy and diagnostic procedures and recognize the possible need for digital applications. In this context, they apply basic diagnostic and therapeutic methods and know the clinically relevant clinical pictures.				
<b>Content of the module</b>	<ul style="list-style-type: none"> <li>• Anatomy and Physiology</li> <li>• Organization and structures of the human body (e.g. blood, infections, and defense)</li> <li>• General diagnostic and therapeutic procedures</li> <li>• Medical terminology</li> <li>• Evidence based medicine</li> <li>• Prevention and health promotion</li> <li>• Individualized medicine</li> <li>• External responsibility and personal responsibility</li> <li>• Cardiological diagnostics &amp; epidemiology of cardiovascular diseases - prevalence, risk factors and prevention</li> <li>• Arterial hypertension</li> <li>• Diabetes mellitus and metabolic syndrome</li> <li>• Diseases of the endocrine system</li> <li>• Diseases of the lungs and nervous system</li> <li>• High blood pressure and vascular diseases</li> <li>• Diseases of the gastrointestinal tract</li> <li>• Diseases of the genitourinary system</li> <li>• Blood diseases &amp; Autoimmune and metabolic diseases</li> <li>• Infectious diseases</li> <li>• conservative and surgical therapies</li> <li>• Laboratory medicine</li> <li>• Classification systems (ICD, SNOMED, etc.)</li> </ul>				

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<b>Forms of learning</b>	Lecture, seminar, presentations, case studies, group work, discussion
<b>Exam form</b>	Exam
<b>Recommendation for subject-related basic literature</b> (Note: Deviations are possible for different teachers)	<ul style="list-style-type: none"><li>- <a href="http://www.amboss.com">www.amboss.com</a>, Learning platform for physicians</li><li>- <a href="https://viamedici.thieme.de/">https://viamedici.thieme.de/</a> , Learning platform for physicians</li></ul>

**Study program:** Digital Health Management - full-time model  
**Module group:** Specific professional competence  
**Module:** M8 Biomedical Ethics and Regulatory Affairs  
**Module responsible:** Team of professors

<b>SHW</b>	3	<b>Contact study</b>	45	<b>Self-study</b>	105
<b>semester</b>	4	<b>Workload</b>	150	<b>ECTS</b>	5
<b>Usability of the module</b>	This module is offered to students of the master's program in Digital Health Management.				
<b>Duration and frequency</b>	1 semester, every 2nd semester				
<b>Participation requirements</b>	According to the standard course of study				
<b>Kind of event</b>	The teaching and learning events are offered in lecture and seminar form. As part of the lecture, the teaching and learning content is presented by the teachers and placed in a larger context. The learning context is prepared in such a way that students can build up and deepen their knowledge base. In the seminar, students work on practice-relevant topics independently, including using literature from one or more sources or using case studies. The teacher takes on the role of "learning coach" and accompanies the students in analyzing, discussing and reflecting on the teaching and learning content in smaller groups.				
<b>Qualification goals/competencies</b>	<p>Students acquire ethical skills for action orientation and decision-making within the framework of basic moral values in medicine and healthcare. They will be sensitized to the ethical dimensions of typical decision-making problems in the professional field.</p> <p>Students gain knowledge of medical and health ethical challenges, theories, and organizational forms. They are familiar with national and international standards for practice and research as well as legal bases and guidelines at national and international levels, with particular attention to digitalization in the healthcare system. Students can understand and interpret the relevant regulatory framework for different products and services, in particular licensing law (e.g. medical device law) and take it into account when developing information technology solutions.</p> <p>They are familiar with the basic principles of data protection and media law and can apply them to various digitalization issues. Students can recognize and minimize data protection risks of entrepreneurial activities - including those with international implications.</p>				
<b>Content of the module</b>	<ul style="list-style-type: none"> <li>• Ethics in medicine and health professions</li> <li>• Ethics in organizations, institutions, companies and industries</li> <li>• Human dignity, autonomy and respect for self-determination</li> <li>• Ethical challenges at the beginning and end of life</li> <li>• Research involving human subjects: national and international ethical standards</li> <li>• Ethical foundations of health systems, health policy and health economics</li> <li>• Ethics and economics: about linking moral and economic goals</li> <li>• Human rights and the United Nations Millennium Goals</li> <li>• International guidelines (Nuremberg Code, Belmont Report, Declaration of Helsinki)</li> </ul>				

	<ul style="list-style-type: none"> <li>• Good Clinical Practice Guideline: ICH-GCP: Principles, roles and responsibilities of sponsor, contract research organization, investigator, monitor</li> <li>• National medicinal products laws of selected countries (focus on Germany, information on Austria, Switzerland, UK, USA)</li> <li>• Submission and approval processes for approving a study to ethics committees and authorities (focus on Germany, comparison to Austria, Switzerland, UK, USA)</li> <li>• German Medical Devices Act and European developments</li> <li>• Medical devices: regulatory approval process and safety monitoring</li> <li>• Privacy policies and laws</li> <li>• Patent protection</li> <li>• Telemedia law (TMG)</li> <li>• Medical professional law and relevant medical law</li> <li>• DIN standards</li> </ul>
<b>Forms of learning</b>	Lecture, seminar, presentations, case studies, group work, discussion
<b>Exam form</b>	Oral examination
<b>Recommendation for subject-related basic literature</b> (Note: Deviations are possible for different teachers)	<ul style="list-style-type: none"> <li>- Amato, S.F., &amp; Ezzell, R.M. (2015). Regulatory affairs for biopharmaceuticals. Cambridge, England: Woodhead Publishing.</li> <li>- "Principles of Biomedical Ethics" by Tom L. Beauchamp and James F. Childress</li> <li>- "Doing Right: A Practical Guide to Ethics for Medical Trainees and Physicians" by Philip C. Heber</li> <li>- "The Spirit Catches You and You Fall Down: A Hmong Child, Her American Doctors, and the Collision of Two Cultures" by Anne Fadiman</li> </ul>



<b>Study program:</b>	Digital Health Management - full-time model
<b>Module group:</b>	Specific professional competence
<b>Module:</b>	M9 Strategic Corporate Management
<b>Module responsible:</b>	Prof. Ehsan Khaljani

<b>SHW</b>	3	<b>Contact study</b>	45	<b>Self-study</b>	105
<b>semester</b>	1	<b>Workload</b>	150	<b>ECTS</b>	5
<b>Usability of the module</b>	This module is offered to students of the Master's program in Digital Health Management.				
<b>Duration and frequency</b>	1 semester, every 2nd semester				
<b>Participation requirements</b>	According to the standard course of study				
<b>Kind of event</b>	<p>The teaching and learning events are offered in lecture and seminar form. As part of the lecture, the teaching and learning content is presented by the teachers and placed in a larger context. The learning context is prepared in such a way that students can build up and deepen their knowledge base. In the seminar, students work on practice-relevant topics independently, including using literature from one or more sources or using case studies. The teacher takes on the role of "learning coach" and accompanies the students in analyzing, discussing, and reflecting on the teaching and learning content in smaller groups.</p>				
<b>Qualification goals/competencies</b>	<p>The module enables students to test the skills they have acquired so far using real, practical questions. The event serves the application-oriented and practice-related development progress of the students and supplements the theoretically oriented modules with practical cases.</p> <p>By reflecting on the theoretical knowledge, they learned on concrete, innovative practical cases, students are able to test their conceptual knowledge and further develop it independently.</p> <p>By analyzing and comparing companies, students can better assess the challenges of business practice. Students will be able to assess company situations in practice and develop options for action based on their theoretical knowledge and their own practical experience.</p>				
<b>Content of the module</b>	<p><b>Focus on "Innovative Management Processes"</b></p> <ul style="list-style-type: none"> <li>• The plan-determined management process and its criticism</li> <li>• System theoretical foundations of corporate management and the systemic management process</li> <li>• Ambidexterity research</li> <li>• The 7-S model of corporate management</li> <li>• Digitalization and management processes</li> <li>• Disruptive business models</li> <li>• Digital maturity level</li> <li>• Digital strategy</li> </ul> <p><b>Focus on "strategy development"</b></p> <ul style="list-style-type: none"> <li>• Market Based vs. Resource Based View of Strategic Management</li> <li>• Strategy development at the business area and overall company level</li> <li>• Strategy development and implementation process</li> <li>• Managing strategic change</li> </ul>				

	<p><b>Focus on “Corporate Development”</b></p> <ul style="list-style-type: none"> <li>• Basic business and development models</li> <li>• (New) approaches to corporate development (path dependency, ambidexterity, business models)</li> <li>• Reasons and goals of corporate development</li> <li>• Ethical issues of corporate development</li> <li>• Opportunities and risks of digitalization in corporate development</li> <li>• Controlling the corporate development process Corporate development instruments</li> </ul>
<b>Forms of learning</b>	Seminar, presentations, case studies, group work, discussion
<b>Exam form</b>	Presentation
<p><b>Recommendation for subject-related basic literature</b>          (Note: Deviations are possible for different teachers)</p>	<ol style="list-style-type: none"> <li>1. Management - A Skills Approach, Phillip L. Hunsaker, Pearson</li> <li>2. High Output Management, Andrew S. Grove, Vintage</li> <li>3. Only The Paranoid Survive, Andrew S. Grove, Vintage</li> <li>4. Disciplined Entrepreneurship, Bill Aulet, Wiley</li> <li>5. Sprint, Jake Knapp, Simon&amp;Schuster Paperbacks</li> <li>6. Traction, G. Weinberg &amp; J. Mares, Portfolio Penguin</li> <li>7. The Great CEO Within, Matt Mochary, <a href="http://www.mochary.com">www.mochary.com</a></li> </ol>

Master's degree program in Digital Health Management  
 Degree: Master of Science

**Study program:** Digital Health Management - full-time model  
**Module group:** Specific professional competence  
**Module:** M10 eHealth (Applications and Areas: Patient centered)  
**Module responsible:** Team of professors

<b>SHW</b>	3	<b>Contact study</b>	45	<b>Self-study</b>	105
<b>semester</b>	3	<b>Workload</b>	150	<b>ECTS</b>	5
<b>Usability of the module</b>	This module is offered to students of the master's program in Digital Health Management.				
<b>Duration and frequency</b>	1 semester, every 2nd semester				
<b>Participation requirements</b>	According to the standard course of study				
<b>Kind of event</b>	The teaching and learning events are offered in lecture and seminar form. As part of the lecture, the teaching and learning content is presented by the teachers and placed in a larger context. The learning context is prepared in such a way that students can build up and deepen their knowledge base. In the seminar, students work on practice-relevant topics independently, including using literature from one or more sources or using case studies. The teacher takes on the role of "learning coach" and accompanies the students in analyzing, discussing and reflecting on the teaching and learning content in smaller groups.				
<b>Qualification goals/competencies</b>	This module aims to equip healthcare professionals with the knowledge and skills necessary to leverage eHealth technologies to deliver patient-centered care. It explores how digital tools and platforms can enhance patient engagement, improve healthcare outcomes, and promote collaborative decision-making between patients and providers.				
<b>Content of the module</b>	<p><b>Learning Objectives:</b>          Understand the concept of patient-centered care and its importance in modern healthcare delivery. Explore various eHealth applications and platforms designed to facilitate patient engagement and empowerment. Learn how to integrate eHealth technologies into clinical practice to enhance communication, education, and shared decision-making with patients. Examine ethical and legal considerations related to the use of eHealth applications in patient care. Develop strategies for overcoming barriers to the adoption and implementation of eHealth solutions in healthcare settings.</p> <p><b>Module Structure:</b></p> <ul style="list-style-type: none"> <li>- Introduction to Patient-Centered Care            Definition and principles of patient-centered care            Importance of patient engagement and empowerment in healthcare            Role of eHealth technologies in supporting patient-centered care initiatives</li> <li>- eHealth Tools for Patient Education and Empowerment            Overview of patient-facing eHealth applications (e.g., patient portals, health apps)            Strategies for leveraging eHealth tools to educate and empower patients            Case studies highlighting successful implementation of patient-centered eHealth initiatives</li> </ul>				

	<ul style="list-style-type: none"> <li>- Enhancing Communication and Shared Decision-Making                      Communication technologies in healthcare (e.g., secure messaging, video consultations)                      Importance of shared decision-making in patient-centered care                      Practical tips for using eHealth tools to facilitate collaborative decision-making with patients</li> <li>- Ethical and Legal Considerations in eHealth                      Ethical principles and guidelines for the use of eHealth technologies in patient care                      Privacy and security issues related to electronic health records (EHRs) and patient data                      Regulatory frameworks governing the use of eHealth applications in healthcare settings</li> <li>- Overcoming Barriers to Adoption and Implementation                      Common challenges and barriers to the adoption of eHealth solutions                      Strategies for engaging patients and healthcare providers in the use of eHealth technologies                      Best practices for successfully integrating eHealth applications into clinical workflows</li> </ul>
<b>Forms of learning</b>	Seminar, presentations, case studies, group work, discussion
<b>Exam form</b>	Presentation
<p><b>Recommendation for subject-related basic literature</b>                      (Note: Deviations are possible for different teachers)</p>	<ul style="list-style-type: none"> <li>• Textbooks:                             <ul style="list-style-type: none"> <li>• "Patient-Centered E-Health" by Eivor Oborn and Ian Scott</li> <li>• "eHealth: Legal, Ethical and Governance Challenges" by George Mair and Aziz Sheikh</li> </ul> </li> <li>• Journals:                             <ul style="list-style-type: none"> <li>• Journal of Medical Internet Research (JMIR)</li> <li>• Health Informatics Journal</li> </ul> </li> <li>• Websites:                             <ul style="list-style-type: none"> <li>• Agency for Healthcare Research and Quality (AHRQ) - Patient-Centered Medical Home Resource Center</li> <li>• HIMSS (Healthcare Information and Management Systems Society) - Patient Engagement Resources</li> </ul> </li> </ul>

<b>Study program:</b>	Digital Health Management - full-time model
<b>Module group:</b>	Professional field-related action skills
<b>Module:</b>	M11 Health Economy
<b>Module responsible:</b>	Prof. Ehsan Khaljani

<b>SHW</b>	3	<b>Contact study</b>	45	<b>Self-study</b>	105
<b>semester</b>	2	<b>Workload</b>	150	<b>ECTS</b>	5
<b>Usability of the module</b>	This module is offered to students of the Master's program in Digital Health Management.				
<b>Duration and frequency</b>	1 semester, every 2nd semester				
<b>Participation requirements</b>	According to the standard course of study				
<b>Kind of event</b>	The teaching and learning events are offered in lecture and seminar form. As part of the lecture, the teaching and learning content is presented by the teachers and placed in a larger context. The learning context is prepared in such a way that students can build up and deepen their knowledge base. In the seminar, students work on practice-relevant topics independently, including using literature from one or more sources or using case studies. The teacher takes on the role of "learning coach" and accompanies the students in analyzing, discussing and reflecting on the teaching and learning content in smaller groups.				
<b>Qualification goals/competencies</b>	The students learn about the structures and processes as well as the general conditions of the German healthcare system. The focus is on financing and information flows, with reference to the relevant laws and regulations (e.g. SGB). The students know Germany's health goals and can classify how they are being achieved. In the second part, the students carry out system comparisons with other health systems based on criteria developed.				
<b>Content of the module</b>	<ul style="list-style-type: none"> <li>• The German healthcare system</li> <li>• Important laws and regulations (e.g. SGB)</li> <li>• Healthcare as an economic factor</li> <li>• Networked structures (IV, DMP, MVZ; etc.)</li> <li>• Suppliers and buyers/financing systems/submarkets</li> <li>• distribution questions</li> <li>• Evaluation of effectiveness and efficiency of measures</li> <li>• Payer &amp; Current health policy</li> <li>• Supply of pharmaceutical products</li> <li>• Health system comparison &amp; International health systems</li> <li>• Applied information and communication technology/international projects</li> </ul>				
<b>Forms of learning</b>	Seminar, presentations, case studies, group work, discussion				
<b>Exam form</b>	Presentation				
<b>Recommendation for subject-related basic literature</b> (Note: Deviations are possible for different teachers)	<ul style="list-style-type: none"> <li>- "The Healthcare Handbook: A Clear and Concise Guide to the United States Healthcare System" by Elisabeth Askin and Nathan Moore</li> <li>- "Health Economics" by Jay Bhattacharya, Timothy Hyde, and Peter Tu</li> <li>- "The Economics of Health and Health Care" by Sherman Folland, Allen C. Goodman, and Miron Stano</li> <li>- "An Introduction to Health Policy: A Primer for Physicians and Medical Students" by Dr. Bhashyam Kasturi</li> </ul>				

**Study program:** Digital Health Management - full-time model  
**Module group:** Professional field-related action skills  
**Module:** M12 Project: eHealth Business Development  
**Module responsible:** Team of professors

<b>SHW</b>	3	<b>Contact study</b>	45	<b>Self-study</b>	105
<b>semester</b>	2	<b>Workload</b>	150	<b>ECTS</b>	5
<b>Usability of the module</b>	This module is offered to students of the Master's program in Digital Health Management.				
<b>Duration and frequency</b>	1 semester, every 2nd semester				
<b>Participation requirements</b>	According to the standard course of study				
<b>Kind of event</b>	The teaching and learning events are offered in lecture and seminar form. As part of the lecture, the teaching and learning content is presented by the teachers and placed in a larger context. The learning context is prepared in such a way that students can build up and deepen their knowledge base. In the seminar, students work on practice-relevant topics independently, including using literature from one or more sources or using case studies. The teacher takes on the role of "learning coach" and accompanies the students in analyzing, discussing and reflecting on the teaching and learning content in smaller groups.				
<b>Qualification goals/competencies</b>	<p>The module serves the in-depth theory-practice transfer. The aim is to apply previously learned knowledge to concrete practical questions. In addition, a better understanding of topics and working methods in digital health management should be gained. The students have the technological competence to be able to assess the influence of innovations on business models around digital health management. They have the necessary management knowledge to develop their own solutions to practical questions.</p> <p>The students are enabled to deal with the demands and stress of a specific project. They can independently generate innovative and creative ideas as part of a team, develop economically viable solutions and present them to specialists and represent them convincingly.</p> <p>Regarding the topic of digitalization, a particular focus is placed on deepening the business models of digital-oriented companies, with the aim of sharpening the students' digital mindset.</p>				
<b>Content of the module</b>	<p><b>Operational design of the module</b> (Preparation of the study project)</p> <ul style="list-style-type: none"> <li>• Introduction to the projects</li> <li>• Preliminary research in self-study (about project content)</li> <li>• Grouping of the project teams</li> <li>• Briefing by the client (if accompanied by a practice partner)</li> </ul> <p><b>Processing of the study project</b></p> <ul style="list-style-type: none"> <li>• Creation of a project plan for each working group</li> <li>• Active participation in specific work tasks to achieve project milestones</li> <li>• Supervision by university lecturers</li> <li>• Courses on selected sub-questions of the project</li> <li>• presentation of results</li> </ul>				

	<p><b>Follow -up to the study project</b></p> <ul style="list-style-type: none"> <li>with reflection of individual project experiences (teamwork, increase in knowledge, usability)</li> </ul> <p><b>Module contents</b></p> <p>The module content depends on the current issues and possible project partners. Projects should meet the following criteria:</p> <ul style="list-style-type: none"> <li>Relation on the topic of eHealth and business development</li> <li>High topicality of the selected topic</li> <li>Ideally, involvement of a practice partner, if this is not possible, processing of a practice issue</li> <li>Open-ended question, i.e. the students develop their own answers based on their previous knowledge</li> </ul> <p>Example projects in this module would be:</p> <p>Project example: Business Model Innovation</p> <ul style="list-style-type: none"> <li>Students learn to apply methods of business model innovation (meta model, process model, techniques and results) and to develop their own business model.</li> <li>They are able to present the results of their project work (e.g. as part of a founder pitch).</li> <li>The students can critically reflect on the experiences they have gained and derive what they have learned for future projects.</li> </ul> <p>Project example: eHealth</p> <ul style="list-style-type: none"> <li>The students know the various possible uses of digital technologies in healthcare.</li> <li>They can use this knowledge to develop meaningful solutions at the interface between technology and management.</li> <li>Possible questions could come from the areas of telemedicine, mobile medical applications for communication over long distances, methods for collecting and evaluating health data or monitoring patients (e.g. chronically ill people) using mobile devices</li> </ul>
<b>Forms of learning</b>	Project
<b>Exam form</b>	Presentation
<p><b>Recommendation for subject-related basic literature</b>          (Note: Deviations are possible for different teachers)</p>	<ul style="list-style-type: none"> <li>"Healthcare Information Technology Project Management" by Kathleen M. LaTour and Cynthia L. Dunn</li> <li>"Digital Health: Critical and Cross-Disciplinary Perspectives" edited by Deborah Lupton</li> <li>"The Innovator's Prescription: A Disruptive Solution for Healthcare" by Clayton M. Christensen, Jerome H. Grossman, and Jason Hwang</li> </ul>



Master's degree program in Digital Health Management  
 Degree: Master of Science

**Study program:** Digital Health Management - full-time model  
**Module group:** Professional field-related action skills  
**Module:** M13 Internship  
**Module responsible:** Team of professors

<b>SHW</b>	40	<b>Contact study</b>	400	<b>Self-study</b>	50
<b>semester</b>	3	<b>Workload</b>	450	<b>ECTS</b>	20
<b>Usability of the module</b>	This module is offered to students of the master's program in Digital Health Management.				
<b>Duration and frequency</b>	10 weeks				
<b>Participation requirements</b>	According to the standard course of study				
<b>Kind of event</b>	Accompanied practical use				
<b>Qualification goals/competencies</b>	<p>The students have already gained practical experience in various professional fields and have applied the theories and methods learned during their studies in concrete projects. You deepen your economic knowledge in a professional, practical environment. The students independently develop a project in the company and deepen and reflect on the technical knowledge required to complete the project. You take responsibility for the implementation of the project in the company and document the progress of the project in your report.</p> <p>During the internship, the students' independence is promoted within the framework of company expectations and opportunities and consolidated with a view to further professional development.</p>				
<b>Content of the module</b>	<p>The event helps to further deepen the theoretical and methodological fundamentals learned in the context of practical work and in the first two semesters and to practically implement and critically reflect on them within the framework of a guided project of one's own in a company.</p> <p>The internship allows students to self-assess their further professional development, provides information on individual priorities, and opens perspectives for their own professional career.</p> <p><b>Preparation of the internship</b></p> <ul style="list-style-type: none"> <li>• Introduction to the internship (technical requirements and fields of activity, legal and administrative background, modalities of supervision)</li> <li>• Creation of an individual work plan including specific learning objectives for the internship phase</li> </ul> <p><b>Phase of the internship</b></p> <ul style="list-style-type: none"> <li>• Active participation in specific work tasks and projects in everyday professional life at the respective practice facility</li> <li>• On-site support from qualified instructors</li> <li>• Critical reflection on the student's experiences through feedback from the instructor in the practice facility</li> <li>• Support from a university lecturer (regular exchange of experiences by telephone, email or on site, technical support of the report)</li> </ul> <p><b>Follow-up to the internship</b></p> <ul style="list-style-type: none"> <li>• Creation of a report and conceptual reflection of individual practical experiences</li> <li>• Final event and exchange of experiences between students</li> </ul>				



Master's degree program in Digital Health Management  
Degree: Master of Science

<b>Forms of learning</b>	Practical insights
<b>Exam form</b>	Written report
<b>Recommendation for subject-related basic literature</b> (Note: Deviations are possible for different teachers)	The subject-related basic literature is based on the specific projects in practice.

Master's degree program in Digital Health Management  
 Degree: Master of Science

**Study program:** Digital Health Management - full-time model  
**Module group:** Methodological and social skills  
**Module:** M14 Training Soft Skills / Intercultural studies  
**Module responsible:** Team of professors

<b>SHW</b>	3	<b>Contact study</b>	45	<b>Self-study</b>	105
<b>semester</b>	1	<b>Workload</b>	150	<b>ECTS</b>	5
<b>Usability of the module</b>	This module is offered to students of the master's program in Digital Health Management.				
<b>Duration and frequency</b>	1 semester, every 2nd semester				
<b>Participation requirements</b>	According to the standard course of study				
<b>Kind of event</b>	<p>The teaching and learning events are offered in lecture and seminar form. As part of the lecture, the teaching and learning content is presented by the teachers and placed in a larger context. The learning context is prepared in such a way that students can build up and deepen their knowledge base. In the seminar, students work on practice-relevant topics independently, including using literature from one or more sources or using case studies. The teacher takes on the role of "learning coach" and accompanies the students in analyzing, discussing and reflecting on the teaching and learning content in smaller groups.</p>				
<b>Qualification goals/competencies</b>	<p>As part of professional training, students are enabled to realistically assess their own potential and development opportunities and to further develop previously acquired soft skills independently on a methodical basis of experiential learning. By taking concrete action and trying out exercises and scenarios, students are enabled to experience, reflect on and further develop their leadership, team and conflict behavior based on sound feedback from the trainers.</p> <p>The students know the various key qualifications of social skills as well as self-solving and problem-solving skills and can integrate and network these into a holistic skills approach. The students internalize models of communication, conflict and stress management as well as problem-solving techniques and can systematically apply these to real practical situations. The students ultimately develop a meta-competence, meaning they learn to learn in order to initiate further competency development processes beyond the module.</p> <p>Students can contextualize the learned assets in an intercultural context.</p>				
<b>Content of the module</b>	<p>The module complements the diverse hard skills taught during the course with important soft skills that are fundamental for personally and socially successful work and study. The module is anchored in the master's program in Digital Health Management in the first semester, so that all relevant key qualifications are trained and further developed in a compact manner right from the start of the course, thereby positively influencing the students' collaboration in the course through team building.</p>				

	<p><b>Personal competence</b></p> <ul style="list-style-type: none"> <li>• Self-image and external image</li> <li>• Mindfulness and work-life balance</li> </ul> <p><b>Problem-solving skills</b></p> <ul style="list-style-type: none"> <li>• Networked thinking and complexity management</li> <li>• St. Gallen problem-solving method</li> <li>• TOTB: Thinking outside the box; creativity techniques</li> <li>• Risk management</li> </ul> <p><b>Social competence</b></p> <ul style="list-style-type: none"> <li>• Have difficult conversations</li> <li>• Conflict management and mediation</li> <li>• Negotiation strategies</li> <li>• Group phenomena and roles in the group</li> </ul>
<b>Forms of learning</b>	Seminar, presentations, case studies, group work, discussion
<b>Exam form</b>	Oral examination interview
<b>Recommendation for subject-related basic literature</b> (Note: Deviations are possible for different teachers)	Clark, T.; Osterwalder, A. (2012): Business Model You, Campus. Covey, S.R. (2004): 7 Habits Of Highly Effective People, Simon & Schuster: London.

Master's degree program in Digital Health Management  
 Degree: Master of Science

**Study program:** Digital Health Management - full-time model  
**Module group:** Specific professional competence  
**Module:** M15 Required Electives  
**Module responsible:** Tutor from the catalogue of elective courses

<b>SHW</b>	3	<b>Contact study</b>	45	<b>Self-study</b>	105
<b>semester</b>	3	<b>Workload</b>	150	<b>ECTS</b>	5
<b>Usability of the module</b>	This module is offered to students of the Master's program in Digital Health Management.				
<b>Duration and frequency</b>	1 semester, every 2nd semester				
<b>Participation requirements</b>	According to the standard course of study				
<b>Kind of event</b>	The teaching and learning events are offered in lecture and seminar form. As part of the lecture, the teaching and learning content is presented by the teachers and placed in a larger context. The learning context is prepared in such a way that students can build up and deepen their knowledge base. In the seminar, students work on practice-relevant topics independently, including using literature from one or more sources or using case studies. The teacher takes on the role of "learning coach" and accompanies the students in analyzing, discussing and reflecting on the teaching and learning content in smaller groups.				
<b>Qualification goals/competencies</b>	Students choose a required elective course from a catalog that further sharpens the interdisciplinary and interprofessional character of this course of study.				
<b>Content of the module</b>	Depends on the chosen subject				
<b>Forms of learning</b>	Seminar, presentations, case studies, group work, discussion				
<b>Exam form</b>	Depends on the chosen subject				
<b>Recommendation for subject-related basic literature</b> (Note: Deviations are possible for different teachers)	Depends on the chosen subject				

Master's degree program in Digital Health Management  
Degree: Master of Science

**Study program:** Digital Health Management - full-time model  
**Module group:** Methodological and social skills  
**Module:** M16 Research Methodology & Tutorial  
Master Thesis  
**Module responsible:** Team of professors

<b>SHW</b>	3	<b>Contact study</b>	45	<b>Self-study</b>	105
<b>semester</b>	3	<b>Workload</b>	150	<b>ECTS</b>	5
<b>Usability of the module</b>	This module is offered to students of the master's program in Digital Health Management.				
<b>Duration and frequency</b>	1 semester, every 2nd semester				
<b>Participation requirements</b>	According to the standard course of study				
<b>Kind of event</b>	The teaching and learning events are offered in lecture and seminar form. As part of the lecture, the teaching and learning content is presented by the teachers and placed in a larger context. The learning context is prepared in such a way that students can build up and deepen their knowledge base. In the seminar, students work on practice-relevant topics independently, including using literature from one or more sources or using case studies. The teacher takes on the role of "learning coach" and accompanies the students in analyzing, discussing and reflecting on the teaching and learning content in smaller groups.				
<b>Qualification goals/competencies</b>	<p>The event helps to strengthen methodological skills. It brings together aspects of empirical social research with relevance for the preparation of corporate decisions.</p> <p>The students can solve comprehensive economic problems from corporate practice using the methods of empirical social research.</p> <p>Using appropriate software (e.g. SPSS, Max Q Data), they can work on business questions by selecting appropriate mathematical models and empirical test procedures, modifying them if necessary, applying them correctly and interpreting the results appropriately.</p> <p>The students acquire the competence to use the results obtained to support business decisions in a reflective manner. They are able to set up their own research designs and implement them in an empirical master's thesis.</p>				
<b>Content of the module</b>	<p><b>Quantitative methods</b></p> <ul style="list-style-type: none"> <li>• Data acquisition and data analysis</li> <li>• Sampling procedure</li> <li>• Statistical testing procedures</li> <li>• Basic procedures of multivariate data analysis</li> <li>• Regression analysis</li> <li>• Time series analysis</li> <li>• Analysis of variance</li> <li>• Factor analysis &amp; Cluster analysis</li> <li>• Logistic regression etc</li> </ul> <p><b>Qualitative methods</b></p> <ul style="list-style-type: none"> <li>• Basic methods of qualitative data collection and analysis</li> <li>• Guide design</li> <li>• Interview forms</li> <li>• Forms of evaluation</li> <li>• Basic methods of qualitative data analysis</li> </ul>				

<b>Forms of learning</b>	Seminar, presentations, case studies, group work, discussion
<b>Exam form</b>	Written assignment
<b>Recommendation for subject-related basic literature</b> (Note: Deviations are possible for different teachers)	<ul style="list-style-type: none"><li>- "Research Design: Qualitative, Quantitative, and Mixed Methods Approaches" by John W. Creswell and J. David Creswell-</li><li>- "Statistics for Healthcare Professionals: An Introduction" by Ian Scott</li><li>- "Evidence-Based Practice in Nursing &amp; Healthcare: A Guide to Best Practice" by Bernadette Mazurek Melnyk and Ellen Fineout-Overholt</li></ul>

Master's degree program in Digital Health Management  
 Degree: Master of Science

**Study program:** Digital Health Management - full-time model  
**Module group:** Methodological and social skills  
**Module:** M17 Master Thesis & Colloquium  
**Module responsible:** Team of professors

<b>SHW</b>	2	<b>Contact study</b>	30	<b>Self-study</b>	570
<b>semester</b>	4	<b>Workload</b>	600	<b>ECTS</b>	25
<b>Usability of the module</b>	This module is offered to students of the master's program in Digital Health Management.				
<b>Duration and frequency</b>	1 semester, every 2nd semester				
<b>Participation requirements</b>	According to the standard course of study				
<b>Kind of event</b>	Seminar and individual support				
<b>Qualification goals/competencies</b>	<p>With the master's thesis, students complete their studies and prove that they are capable of independently producing a comprehensive scientific work.</p> <p>The students can use scientific means to work on a question relevant to the subject of study and to answer it comprehensively on the basis of theoretical and methodological knowledge.</p> <p>They have extensive knowledge of reviewing and evaluating scientific literature and are proficient in the use of empirical research methods required for the collection and analysis of scientific data.</p> <p>The students reflect on their own scientific approach and take a critical stance on their application of general and subject-specific skills. They critically discuss the concept of their work, their questions, and methods as well as the empirical results in a colloquium.</p> <p>The master's thesis is a specialist examination that must be completed in accordance with the requirements of the framework study and examination regulations and is centered on a question from the area of master's training.</p> <p>The master's thesis is an examination paper through which students demonstrate that they can independently work on a topic relevant to their future professional field using scientific methods within a specified period of time.</p>				
<b>Content of the module</b>	The topic of the master's thesis will be issued at the earliest after the completion of the third semester or at the latest after the completion of all other subject examinations. It deepens a selected application aspect and contributes to the clarification of a defined scientific question by empirical methods.				
<b>Forms of learning</b>	Submission of a scientific paper				
<b>Exam form</b>	Master's thesis, colloquium				
<b>Recommendation for subject-related basic literature</b> (Note: Deviations are possible for different teachers)	Thornhill, A., Saunders, M., & Lewis, P. (2008). Research methods for business students. Pearson.				



## 7. Study progress overview

Modules Masters Digital Health Management									
	Module Nr.	Modules	Weekly hours / semester				CP	Examination	
			1st Sem.	2nd Sem.	3rd Sem.	4th Sem.		Semester	Type
General	M1	Business Models in the Digital Economy		3			5	2	WA
	M2	New Work & eLeadership		3			5	2	WA
	M3	Digital Transformation & agile Management		3			5	2	OA
	Summe						15		
Specific	M4	eHealth (Application and Areas: Professional centered)		3			5	2	PRES
	M5	Data-Management & Business Intelligence			3		5	3	WE
	M6	eHealth (Technologies)	3				5	1	WE
	M7	Medical Diagnosis and Procedures	3				5	1	WE
	M8	Biomedical Ethics & Regulatory Affairs				3	5	4	OA
	M9	Strategic Corporate Management	3				5	1	PRES
	M10	eHealth (Applications and Areas: Patient centered)			3		5	3	PRES
	M11	Health Economy		3			5	2	PRES
Sum						40			
Practical	M12	Project: eHealth-Business Development		3			5	2	PRES
	M13	Internship			Block		20	3	REP
	Sum						25		
Methodic	M14	Training Soft Skills & Intercultural Studies	3				5	1	OA
	M15	Elective Subject			3		5	3	D
	M16	Research Methodology & Tutorial Master Thesis			3		5	3	WE
	M17	Master Thesis & Colloquium				2	25	4	PAPER
	Sum						40		
Sum			12	18	12	5	120		

## 8. Further reading

### General professional competence

Colquitt, J.; LePine, J.; Wesson, M. (2012): Organizational Behavior, McGraw Hill: New York.  
Morgan, G.; Gregory, F.; Roach, C. (1997): Images of organization, Wiley: New Jersey.  
Robbins/Judge (2012): Organizational behavior. 15th ed. Boston: Pearson.  
Yukl, G. (2013): Leadership in Organizations, 8th Ed., Prentice Hall: Essex.  
Il principe (The Prince), Niccolo Machiavelli, Reclam  
The Art of Being Right, Arthur Schopenhauer, Nikol  
The Hard Thing About Hard Things, Ben Horowitz, Harper Business  
The Almanach of Naval Ravikant – Wealth, Health, and Happiness, Naval Ravikant, Self-published

### Professional field-related competence

Amato, S. F., & Ezzell, R. M. (2015). Regulatory affairs for biomaterials and medical devices. Cambridge, England: Woodhead Publishing.

### Methodological and social skills

Covey, S.R. (2004): 7 Habits Of Highly Effective People, Simon & Schuster: London.  
Thornhill, A.; Saunders, M.; Lewis, P. (2008): Research methods for business students. Pearson: London.