

Digital Healthcare

Berufsbegleitend | part-time

Key Aspects

Design & Prototype Healthcare Interfaces
Collect & Analyze Health and Fitness Data
Assess & Evaluate Patient Engagement

Master



Digital Healthcare

Gestalten Sie technisch geprägte Innovationen im Gesundheitswesen! Arbeiten Sie gemeinsam mit Gesundheits- und Technikexpert*innen interdisziplinär an Methoden und Werkzeugen und entwickeln Sie konkrete Lösungen für Prävention, Diagnostik, Therapie und Pflege. Im Zentrum des Studiums steht der praktische Nutzen für Patient*innen, deren Angehörige und vor allem Gesundheitsprofessionist*innen.

The aim of the course of studies is the interdisciplinary design of technically-informed innovations in the healthcare sector. Health and technology experts together learn methods and technical tools to conceive and develop concrete solutions for prevention, diagnostics, therapy and care. The focus is on practical benefits for patients, their relatives and above all health professionals.

Studieninhalte | Course Content

Gestalten Sie Ihr Studium individuell. So lernen Techniker*innen die Prozesse im Gesundheitswesen kennen und Gesundheitsexpert*innen die Erfordernisse der Informations- und Kommunikationstechnologien verstehen. Die Lehrveranstaltungen werden auf Deutsch und Englisch abgehalten.

Im Vordergrund Ihres Studiums steht der Erwerb von Handlungskompetenzen in der Erfassung und Verarbeitung von Gesundheitsdaten, dem Design und Prototyping von Healthcare Interfaces und der evidenzbasierten Evaluierung des Patient Engagements. Sie arbeiten über vier Semester an einem gemeinsamen Digital-Healthcare-Projekt. Beispielhafte Lösungen umfassen Mixed-Reality-Visualisierungen in der Radiologie oder sensorgestützte Systeme zur Gangrehabilitation. Mehr Projekte: showreel.mdh.fhstp.ac.at

Fundamentals: Studierende mit technischem Background erlernen Grundlagen aus dem Gesundheitsbereich, während sich Studierende aus dem Gesundheitsbereich das technische Grundlagenwissen aneignen.

Freie Wahl der Spezialisierung:

- **Healthcare Technology Development:** Fachkompetenzen für die Konzeption und Entwicklung von technischen Lösungen für das Gesundheitswesen
- **Healthcare Technology Assessment:** Fachkompetenzen für die evidenzbasierte Evaluation von digitalen Technologien und Medien in der Prävention, Diagnostik, Therapie und Pflege

The Master programme is highly customizable. Technicians learn the processes in the field of healthcare, while health professionals study the requirements of information and communication technologies. The courses are held in German and English.

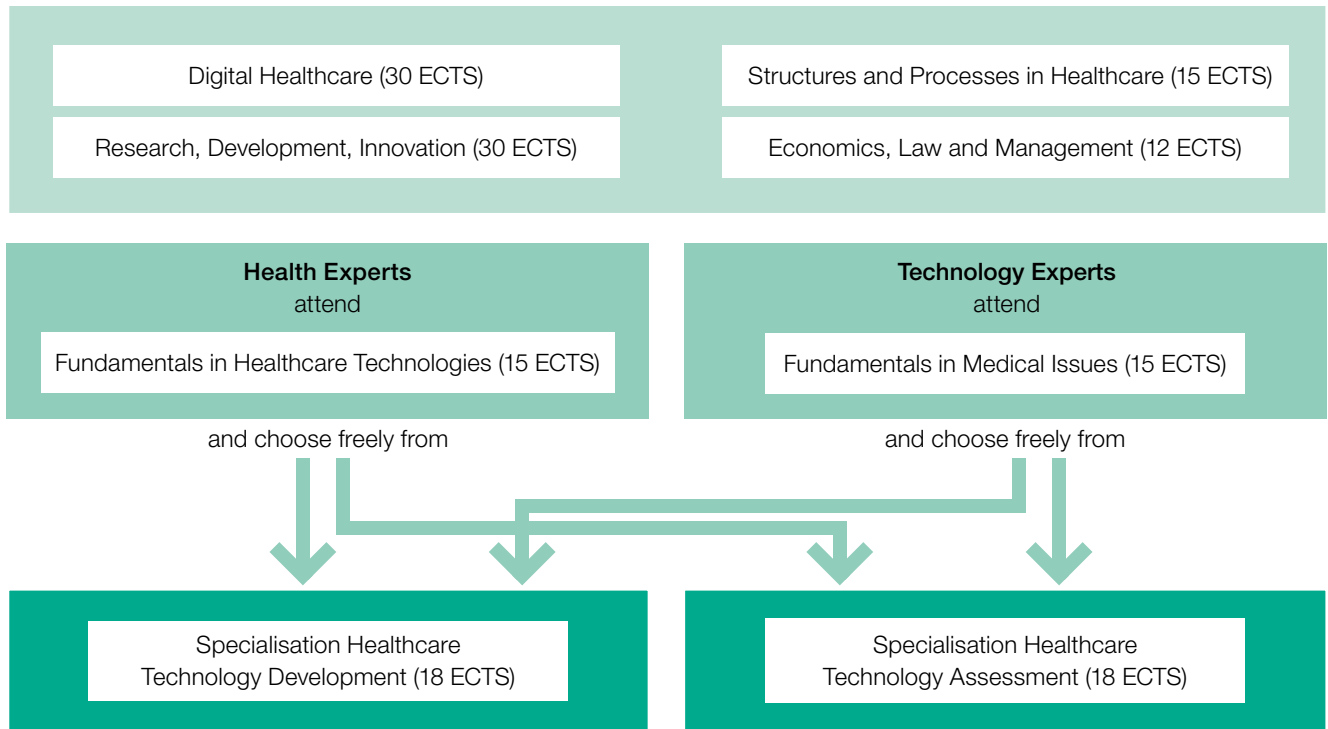
A particular focus lies on the acquisition of activity competencies in the collection and processing of health data, the design and prototyping of healthcare interfaces and the evidence-based evaluation of patient engagements. Over the course of four semesters students work on a Digital Healthcare project. Exemplary solutions include mixed-reality visualizations in radiology or sensor-supported systems for gait rehabilitation. More projects: showreel.mdh.fhstp.ac.at

Fundamentals: Students with a technical background learn the basics in the healthcare area, while students from the healthcare area acquire basic technical knowledge.

Select between specialisations:

- **Healthcare Technology Development:** Technical skills for the design and development of technical solutions for healthcare
- **Healthcare Technology Assessment:** Technical skills for the evidence-based evaluation of digital technologies and media in prevention, diagnosis, treatment and care

4 semesters | part-time | bilingual



Information



Graduation

Master of Science in Engineering (MSc)

Study places/year

24

Academic director

FH-Prof. Jakob Doppler, MSc

Organisation

Part-time. The courses mainly take place on Friday afternoons and Saturdays every second week and online distance learning during the week. In addition, there is one in-class week per semester. A large part of the educational contents is acquired in projects and supported by e-learning.



Application

apply.fhstp.ac.at

Admission dates & requirements

fhstp.ac.at/mdh



Information

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Campus & Study Center (CSC)
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Karrierechancen | Career Prospects

Werden Sie zur Spezialist*in in der interdisziplinären Konzeption, Umsetzung, Evaluierung und Weiterentwicklung von Szenarien im Gesundheitswesen, unterstützt durch digitale Technologien. Ihre Fähigkeiten werden im gesamten Gesundheitssektor benötigt, wie z. B. bei Sozialversicherungen, Krankenanstalten, Industrie- oder Forschungseinrichtungen und in IT-orientierten Gesundheitsunternehmen.

Berufsfelder

- Researcher Digitale Technik & Gesundheit
- Regulatory Affairs Manager
- Medical Engineer
- Developer & Application Specialist
- Medizinprodukteberater*in
- Clinical Sales Specialist
- Projektmanager*in

The graduates become experts in the interdisciplinary design, implementation, evaluation and development of healthcare scenarios with the aid of digital technologies. Their expertise is needed in the entire healthcare sector, e. g. by social security, hospitals as well as industrial and research institutions and in IT-driven healthcare companies.

Occupational fields

- Researcher in digital technologies & health
- Regulatory affairs manager
- Medical engineer
- Developer & application specialist
- Medical device advisor
- Clinical sales specialist
- Project manager



Read success stories of our graduates

fhstp.ac.at/alumni.erfolgsgeschichten

Curriculum Digital Healthcare

1st academic year

1 st semester	ECTS
Introduction to Digital Healthcare	1
Development of Ideas and Concepts for Digital Healthcare	4
Innovation and Development Processes in the Healthcare Sector	4
Goal-oriented Communication and Consulting	2
Health Care and Management in the Healthcare System	2
Fundamentals of Process Modelling in the Healthcare Sector	2
Fundamentals in Healthcare Technology*	
Fundamentals of Media Production, Distribution and Web Technologies	4
Fundamentals in Programming	4
Fundamentals in Medical Issues*	
Fundamentals of Anatomy	4
Fundamentals of Physiology	4
Specialisation Healthcare Technology Development**	
Web Programming and Technologies	4
Computers and Networks	3
Specialisation Healthcare Technology Assessment**	
Introduction to Media-Assisted Health Pedagogics	4
Research Methods and Study Design	3

2 nd semester	ECTS
Information and Communication Systems in Healthcare	3
Projects - Design and Development in Digital Healthcare	6
Methods of Measurement and Analysis in Healthcare	4
Database Management and Modelling	4
Ethics & Patients' Rights in the Healthcare Sector	2
Fundamentals in Healthcare Technology*	
Fundamentals of Signal Processing	3
Fundamentals in Medical Issues*	
Fundamentals of Pathology	3
Specialisation Healthcare Technology Development**	
Applied Sensor Technology and Electronics	4
Rapid Visual Programming and Prototyping	4
Specialisation Healthcare Technology Assessment**	
Applied Methods of Measurement and Analysis in Healthcare	4
Person-centred Application of Digital Technologies in Healthcare	4

2nd academic year

3 rd semester	ECTS
Evaluation and Optimisation of Digital Healthcare	10
Applied Statistics and Data Analysis	4
Health Law and Legislation	2
Strategic Marketing and Product Management	2
Human Resource Management and Leadership	2
Fundamentals of Public Health and Health Behavior	3
Fundamentals in Healthcare Technology*	
Fundamentals of Data Visualization and Process Management in Clinical Settings	4
Fundamentals in Medical Issues*	
Fundamentals of Prevention, Rehabilitation and Care	4
Specialisation Healthcare Technology Development**	
Emerging Fields and Technologies in Digital Healthcare	3
Specialisation Healthcare Technology Assessment**	
Assessment of Digital Media in Healthcare	3

4 th semester	ECTS
Documentation and Application for Digital Healthcare	6
Master Thesis	18
Electronic Health Records	2
Quality Management in the Health Services	2
Medical Marketing and Market Access	2

* Acquisition of basic knowledge in the other focal area: Students with a technical background learn fundamentals in medical issues while students with a healthcare background attend courses on fundamentals in healthcare technology.

** Students can choose freely between the two specialisations.

ECTS: European Credit Transfer System – Measure for the entire workload for average students to complete a course of lectures positively. One credit point stands for 25 hours of workload (attendance, self-study, examinations etc.).



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*25 minutes
from Vienna*

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