



Master of Science in Medical Informatics

Do you want to make a difference in healthcare?
Our programme can help you just do that.

With hands-on training in data analytics, machine learning and more, you'll gain the skills to revolutionize the field and improve patient care.

The MSc programme, conducted in English, offers a comprehensive training in **cutting-edge medical and pharmaceutical industry technologies**. Medical Informatics plays a crucial role in healthcare, combining medicine, computer science, data science and AI to optimize healthcare data acquisition, storage, retrieval, and most importantly, applications.

The programme enables students to use technology to support healthcare professionals' decision-making, **improve patient outcomes, and enhance the quality and efficiency of healthcare delivery**. Students explore a wide range of key Medical informatics data applications, including patient records, medical imaging, genetic information, wearable devices and patient generated data.

Thanks to hands-on experience and internships, students have the opportunity to apply their knowledge and develop software solutions for hospitals and the pharmaceutical industry.

Graduates from the programme can make a vital contribution to advancements in computer assisted diagnosis, data exploration and privacy-ethical discussions and other emerging fields in the medical and pharmaceutical sectors.

Located near Basel, a worldwide hub for the healthcare and pharmaceutical industries, **the programme offers outstanding job prospects**, with numerous leading providers in the area actively participating in the programme. Graduates benefit from proximity to industry professionals, excellent networking opportunities and access to the latest developments in this innovative and exciting field.



Some of the areas covered during the Master's programme in Medical Informatics

- Medical data science
- Machine learning in medicine
- Digital transformation in healthcare
- Medical software development
- Digital biomarkers
- Applied quantum computing
- Artificial intelligence in drug discovery
- Cyber security and cyber resilience
- Business intelligence
- Knowledge processing and decision making

Target Group

The Master's programme of Medical Informatics is aimed at students with a Bachelor's degree in Medical Informatics, as well as related disciplines such as Computer Science/Informatics, Master of Medicine, Pharmaceutical Sciences, Life Sciences, or similar fields that meets the programming/medicine knowledge requirements.

Specifications

• **Medical Informatics**

This specialization combines the latest information technology insights with a focus on the healthcare industry, covering areas such as biomedical data analysis, AI application, big data, and the economic aspects related to digitalization's impact on healthcare. It emphasizes personalized medicine and includes internships and seminars with leading healthcare providers, addressing practical applications in health data analysis, software development for hospitals and pharmaceuticals, along with ethical and data security considerations.

• **Pharma Informatics**

Located in the Basel area, a global hub for pharmaceutical innovation, this specialization combines advanced informatics, machine learning, and mathematical techniques with a focus on AI's role in drug discovery, aiming to prepare students for leading roles in the industry's digital transformation. Through a mix of theoretical knowledge and hands-on internships with leading pharmaceutical companies, the curriculum offers a comprehensive skill set, including insights into laboratory automation, digital biomarkers and different aspects of drug discovery.

Degree

Master of Science in Medical Informatics FHNW.

Dates

The master's programme begins in the autumn semester (calendar week 38)

Location

Fachhochschule Nordwestschweiz
School of Life Sciences
Hofackerstrasse 30
CH-4132 Muttenz

Costs

Application fee: CHF 200

Tuition fees: CHF 750 per semester (Swiss, Liechtenstein), CHF 1000 (EU), otherwise CHF 5000

A fee of CHF 100 per semester is also charged for materials and licences.

Programme Head

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Further Information

www.fhnw.ch/lifesciences/master-medical-informatics

Registration

The deadline for applications for the autumn semester is 30 April of the relevant year.

www.fhnw.ch/lifesciences/master-medical-informatics-registration



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