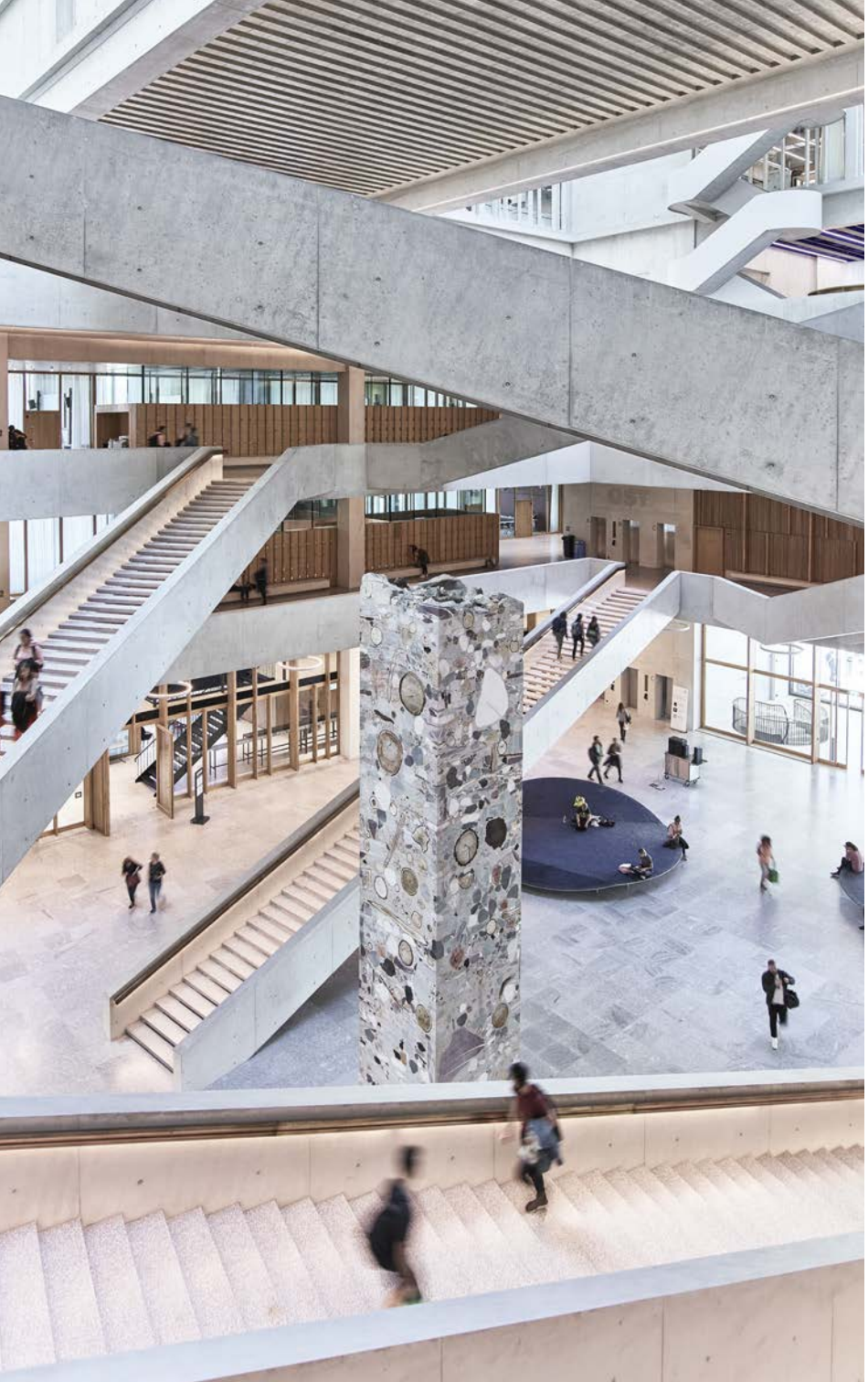
University of Applied Sciences and Arts Northwestern Switzerland
School of Life Sciences

MSc in Medical Informatics

Apply digital techniques and artificial intelligence in healthcare

fhnw.ch/master-medical-informatics



Quick Facts

Master of Science in Medical Informatics FHNW

Full or part-time study

- **A coordinated Master's programme in Medical Informatics run by the Swiss Universities of Applied Sciences**
- **Specialisations offered by this study programme:**
  - Medical Informatics
  - Pharma Informatics
- **Designed for motivated students who want to make a difference in healthcare**
- **With hands-on training in data analytics, machine learning and more, you'll gain the skills to revolutionize the field and improve patient care**
- **Some of the areas covered during the Master's programme:**
  - 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 in digital health
  - Business intelligence
  - Knowledge processing and decision making
- **Three semesters full-time study, 90 ECTS credits**
- **Master's thesis: 30 ECTS credits, modules: 60 ECTS credits**
- **Admission: A good BSc degree in Medical Informatics or related disciplines such as Computer Science / Informatics, Medicine (including MSc in Medicine or equivalent), Pharmaceutical Sciences, Life Sciences, or similar fields that meet the programming / medical knowledge requirements.**
- **Admission deadline: April 30th**
- **Start of studies: mid-September (calendar week 38)**
- **Tuition fees: CHF 750 per semester (Swiss, Liechtenstein), CHF 1 000 (EU), otherwise CHF 5 000, CHF 100 materials and licence fee per semester**

Studying Medical Informatics
Introduction

The FHNW School of Life Sciences is a leading Swiss institution for education and research in Life Sciences, focusing on medical, natural, environmental and engineering sciences. It works closely with industry and research partners, developing technology to translate research into practical applications.

The Master's programme provides comprehensive training in cutting-edge medical and pharmaceutical technologies, through a strong collaboration with the healthcare industry. The field integrates medicine, computer science, data science and AI to exploit and optimize healthcare data. Students learn to use technology to support healthcare professionals, improve patient outcomes and enhance healthcare delivery efficiency.

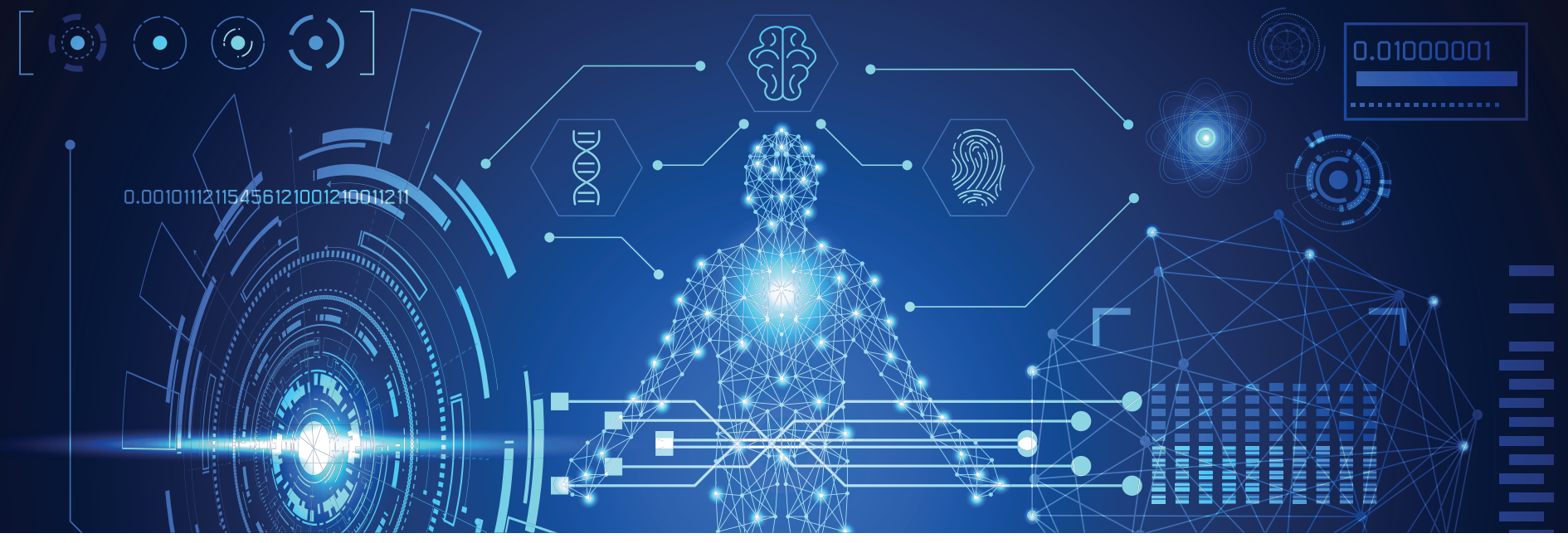
The programme covers a range of Medical Informatics applications, including patient records, medical imaging, genetic information, wearable devices and patient-generated data. Through hands-on experience and internships, students develop software solutions for hospitals and the pharmaceutical industry. Graduates are equipped to contribute to advances in computer-assisted diagnosis, data exploration, privacy-ethical discussions and other emerging areas in the medical and pharmaceutical sectors.

Situated near Basel, a global hub for the healthcare and pharmaceutical industries, the programme offers excellent job prospects. Working with leading providers in the area provides students with networking opportunities and access to the latest developments in this dynamic field.

At the heart of the healthcare industry

Europe's largest life sciences centre: Basel
The FHNW School of Life Sciences is part of Europe's largest life sciences centre, at the heart of the medical and pharmaceutical industries. We are committed to developing new methods to deliver better diagnosis and therapy, improving people's quality of life.

We use our industry network to give our students a comprehensive insight into real-life applications. Students are directly involved in current projects throughout their studies and work in partnership with industry on the burning issues of tomorrow.



Specialisation: Medical Informatics

Career Opportunities
Combining the latest information technology insights with a focus on the healthcare industry, this specialisation covers areas such as biomedical data analysis, AI tools, big data and their applications in the healthcare industry.

It emphasizes personalized medicine, and includes internships and seminars with leading healthcare providers to address practical applications in health data analysis, software development for hospitals and pharmaceutical firms, along with ethical and data security considerations.

Specialisation: Pharma Informatics

Career Opportunities
This specialisation combines advanced informatics, machine learning and mathematical techniques with a focus on AI's role in drug discovery, to prepare students for leading roles in the industry's digital transformation.

Thanks to 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 key aspects of drug discovery.

The FHNW incorporates ten Schools:

- FHNW School of Applied Psychology
- FHNW School of Architecture, Construction and Geomatics
- FHNW Basel Academy of Art and Design
- FHNW School of Computer Science
- **FHNW School of Life Sciences**
- FHNW Basel Academy of Music
- FHNW School of Education
- FHNW School of Social Work
- FHNW School of Engineering and Environment
- FHNW School of Business

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www.fhnw.ch/master-medical-informatics