



## MSc Medical Informatics

Apply digital techniques and artificial intelligence in healthcare



## Quick Facts

Master of Science in Life Sciences FHNW

full or  
part-time  
study

- ✓ **A coordinated Master's programme in Life Sciences conducted 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
  - 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
- ✓ **Three semesters full-time study, 90 ECTS credits**
- ✓ **Master's thesis: 30 ECTS credits, modules: 60 ECTS credits**
- ✓ **Admission: good BSc degree in life sciences, health sciences or doctor in medicine, computer science, information systems or an equivalent educational background and professional experience (college or university degree)**
- ✓ **Admission deadlines: April 30th**
- ✓ **Start of studies: mid-September (calendar week 38)**
- ✓ **Tuition fees: CHF 700.- per semester (Swiss, Liechtenstein), CHF 1000 (EU), otherwise CHF 5000.-, CHF 100.- material and licences fee per semester**

# Studying Medical Informatics

## Introduction

The FHNW School of Life Sciences is a leading institution in Switzerland for education and research in Life Sciences, focusing on medical, natural, environmental, and engineering sciences. Through collaboration with industry and research partners, it emphasizes technology development to translate research into practical application.

The Master's program provides comprehensive training in cutting-edge medical and pharmaceutical technologies. The field integrates medicine, computer science, data science, and AI to use and optimize healthcare data. Students learn to utilize technology to support healthcare professionals, improve patient outcomes, and enhance healthcare delivery efficiency.

The program covers various 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 advancements 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 healthcare and pharmaceutical industries, the program offers excellent job prospects. Collaboration with leading providers in the area provides students with networking opportunities and access to the latest developments in this dynamic field.

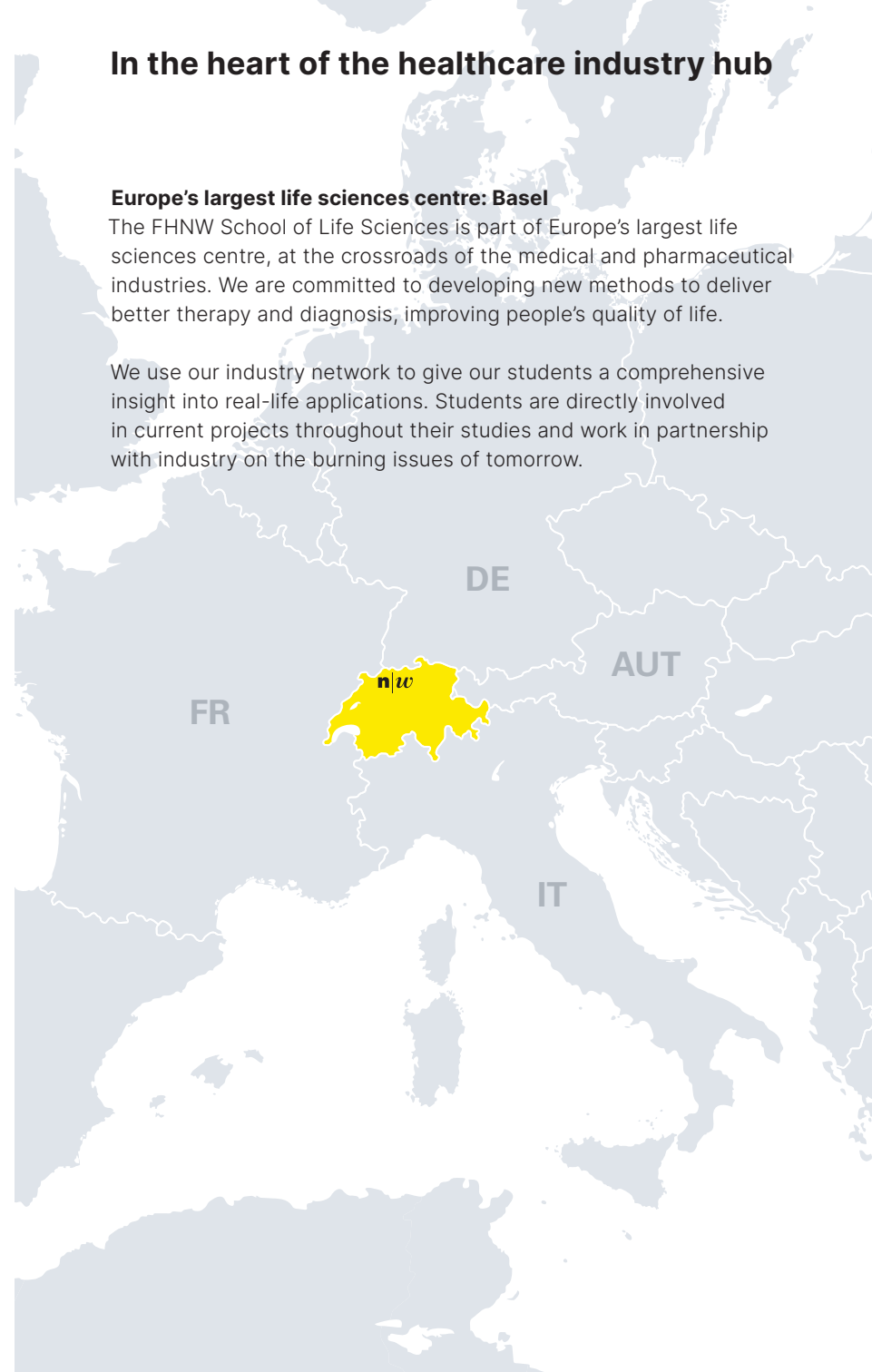


## In the heart of the healthcare industry hub

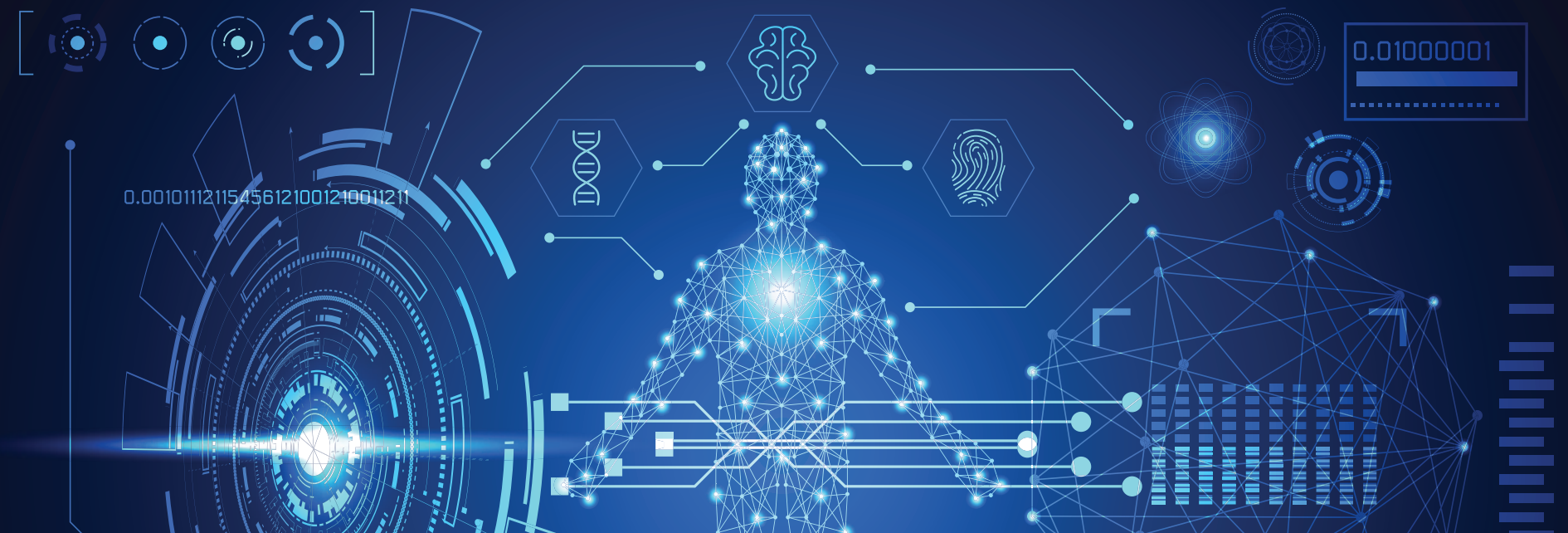
### Europe's largest life sciences centre: Basel

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

This specialisation 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.

## Specialisation: Pharma Informatics

### Career Opportunities

Located in the Basel area, a global hub for pharmaceutical innovation, this specialisation 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.

The FHNW incorporates nine faculties:

- FHNW School of Applied Psychology
- FHNW School of Architecture, Civil Engineering and Geomatics
- FHNW Academy of Art and Design
- **FHNW School of Life Sciences**
- FHNW Academy of Music
- FHNW School of Education
- FHNW School of Social Work
- FHNW School of Engineering
- FHNW School of Business

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