CAIM's master's programs
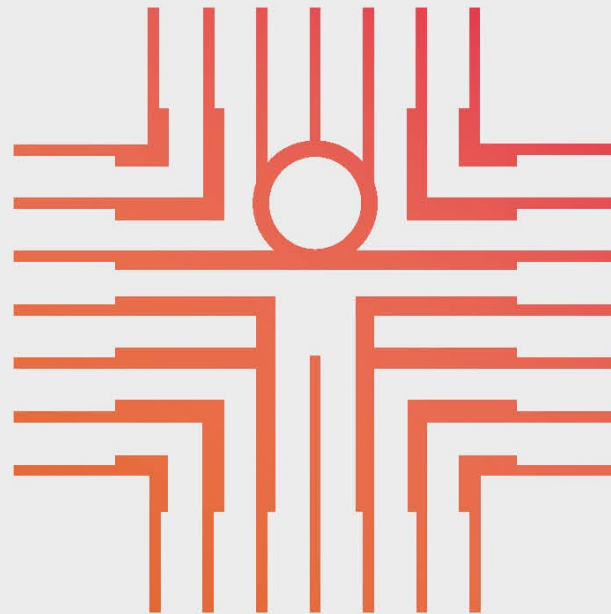# AI in Medicine & Biomedical Engineering

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09.09.2021 Africa AI Expo

Postgraduate Studies

PhD Studies:

- Graduate School for Cellular and Biomedical Sciences

- Graduate School for Health Sciences

- PhD Computer Science

MSc Programs:

- AI in Medicine *(starts fall 2021)*

- Biomedical Engineering

Continuing Education:

- AI in Medical Imaging

- Applied Data Science

- Advanced Machine Learning

- Biomedical Entrepreneurship

caim.unibe.ch/education

MSc Artificial Intelligence in Medicine

Program vision: Train the next generation of work-force and entrepreneurs with theory and practical experience in the area of AI for Healthcare

Context:

Major investments in digitalization and AI for healthcare have taken place in the last decade. The role of AI methods in medicine is projected to have major impact at economic and society levels. For many SME's who wish to stay competitive, there is a dire need for expertise in this discipline. Similarly, hospitals are in strong need to accrue knowledge in this domain.

Program Overview

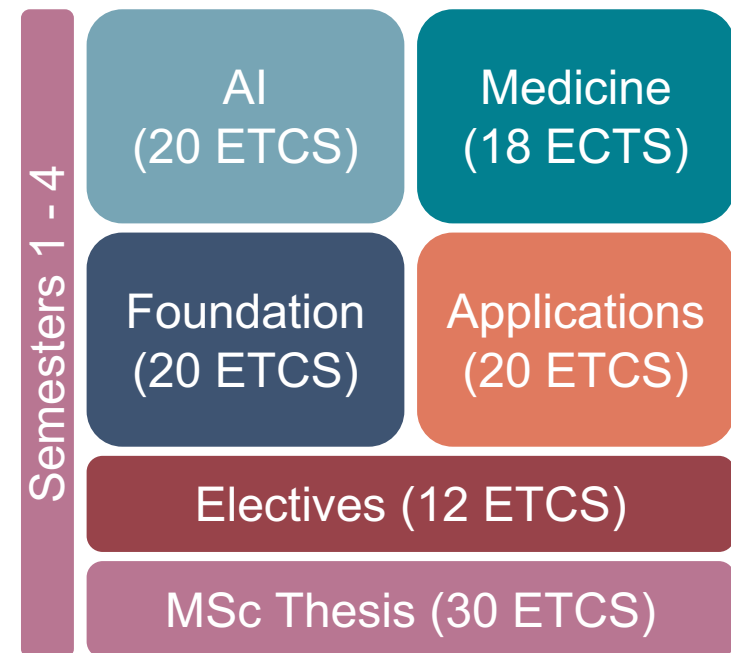
ETCS credits: 120

Duration: 4 Semesters

Language: English

Start of studies: Fall semester (starting 2021)

Structure and Content

Highlights:

- Only MSc of its kind in a medical faculty

- Both theory and applied AI courses

- Introduction to broad medicine content

- "*Rotations*" for students in different clinics for in-situ experience

Semesters 1 - 4

AI (20 ETCS)	Medicine (18 ECTS)
Foundation (20 ETCS)	Applications (20 ETCS)
Electives (12 ETCS)	
MSc Thesis (30 ETCS)	

Artificial Intelligence Module

- ✓ Artificial Intelligence

- ✓ Machine Learning

- ✓ Deep Learning

- ✓ Reinforcement Learning

Applications Module

✓ Medical Image Analysis

✓ Clinical Decision Support Systems

✓ Time Series

✓ Natural Language Processing

Medicine Module

✓ Introduction to Clinics

✓ Clinical Implementations of AI

✓ Basics in Physiology

✓ Omics - from genomes to metabolomes

Post-graduate Profile

✓ Solid background in AI and knowledge of the most advanced techniques in the field

✓ Experience of the current challenges in medicine

✓ Ability to identify how AI can provide intelligent solutions to open or underexplored areas of medical and clinical practice

✓ Opens for a
- Doctorate (PhD)
- Research or R&D career in the area of AI in Healthcare
- Career in the industry

Biomedical Engineering
Master of Science

Two-year / part-time / English

— Collaboration: BFH

— Admission: BSc in STEM

— Clinically-oriented program affiliated with a leading medical faculty

— Study at the Swiss medical technology hub with strong ties to industry and the clinic

Thank you!

For more information visit our website   www.caim.unibe.ch/education/

Contact us   info.caim@unibe.ch