



Contact

Study Coordination Office
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**UNIVERSITÄT
BERN**

Master of Science

Artificial Intelligence in Medicine

Duration

Two-years, 120 ECTS

Language

English

Semester Start

Fall semester

Application Deadline

Regular registration: April 30
(Notification of acceptance for regular
registrations: by June 1)

Late registration: August 31

(Only if the student does not require a visa for
entering and residing in Switzerland)

Application

For more information on the
application process:
www.caim.unibe.ch/msc_aim

Fees

From 805 CHF / Semester

University of Bern
ARTORG Center
for Biomedical Engineering Research
Murtenstrasse 50
3008 Bern
Switzerland



@ Universität Bern AKM_B_05.2021_E

INSELGRUPPE

Do you want to develop engineering solutions to unmet medical challenges?

Our master's program is your path to a successful career in medical technology innovation. In Bern, biomedical engineers, AI experts and clinicians work together to bring better treatments to patients. **Be part of this team!**

Master of Science

Artificial Intelligence in Medicine

- › Two-year full-time program in English
- › Admission with bachelor's degrees in a variety of STEM subjects
- › Rotations in university hospital departments to be instructed in medical specialties
- › Fundamental and applied courses in AI
- › Master's thesis project (one semester)
- › Study at the Swiss medical technology hub with strong ties to industry and the clinic!

Program

The MSc Artificial Intelligence in Medicine (MSc AIM) is an interdisciplinary, two-year, full-time master's program.

Throughout the MSc AIM program the students will gain a solid background in artificial intelligence (AI) and machine learning. In parallel, the program acquaints the students with basic concepts of biology and medicine and provides consolidated core biological, medical and clinical knowledge. During a period of two semesters, regular visits to the hospitals of the Insel Group will encourage the students to dive deeply into clinical procedures and medical routines, in order to identify those processes and procedures that can benefit from AI.

The MSc thesis project (4th semester) will be conducted in collaboration with renowned physicians from Bern University Hospital (Inselspital), internationally acknowledged researchers in the field of AI from the University of Bern and leading Swiss and international companies.

Module AI

Students will gain deep knowledge in AI and machine learning through a series of mandatory courses, such as "Machine Learning", "Introduction to Artificial Intelligence", "Deep Learning" and "Reinforcement Learning".

Module Medicine

The module provides students with an introduction to the clinical environment. In addition, they spend time exploring fundamental aspects of physiology and the crucial topic of omics. The "Clinical Implementations in AI" course allows students to experience different medical specialties through a system of rotations in different hospital departments.

Module Applications

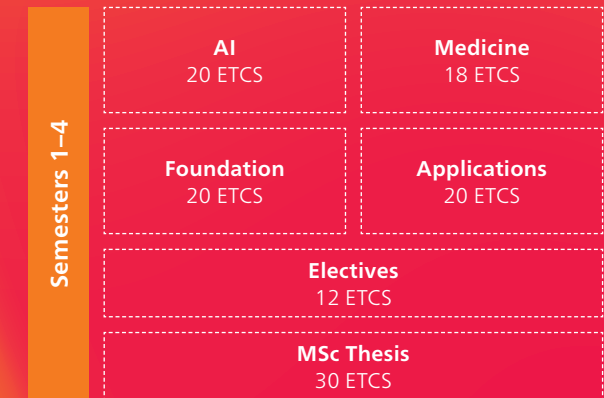
Several mandatory courses will allow students to explore and understand the existing applications of AI in domains like medical image processing, computer vision, natural language processing and medical decision support systems.

Modules Foundation / Electives

Students can select from a wide range of courses in computer science, mathematics, biomedical engineering, bioinformatics, and computational biology. This choice enables them to

- bridge the gap between their bachelor's and MSc AIM studies by tailoring their course selection to their individual scientific background (Foundation).

Study Structure



- strengthen their skills in specific areas by choosing courses according to their personal interests (Electives).

Admission Procedure

The MSc AIM is open to high achieving students with a bachelor's degree in computer science, biomedical engineering, electrical engineering, mechanical engineering, mathematics and physics. Since the program is conducted in English, evidence of good knowledge of the English language is required. Admission is granted on the basis of your application, the bachelor's degree's grade, the curriculum of the bachelor's program, the curriculum vitae, your motivation letter, reference letters, university reputation and others.

Career Perspectives

The digital health transformation of the entire healthcare ecosystem is already in motion and AI is the catalyst. The MSc AIM is designed to give students the knowledge and skills to be leaders in the field. Graduates from this program will take advantage of the strong Swiss, European, and international network of the involved institutions both in academia and health industry.