Duration
Two-years, 120 ECTS

Language
English

Semester Start
Fall semester

Application Deadline
Regular registration: April 30
Late registration: August 31
Notification of acceptance for regular registrations: by June 1

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

Fees
From 750 CHF / Semester

Contact
Study Coordination Office
aim@artorg.unibe.ch
www.caim.unibe.ch/msc_aim
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 specialities
- 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 world-famous 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.

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

Medicine Module
Clinical and medical courses such as Physiology, Principles of Human Medicine and "Omics" (from genomes to metabolomes) will allow students to understand the complexity of medicine. The mandatory course «Data Science in Clinics» via a system of rotations at different hospital departments, will allow them to become acquainted with the different medical specialities.

Applications Module
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.

Foundations Module
The selection of courses from the Foundations Module depends on the students’ individual scientific background. The courses will act as bridge between the Bachelor and the MSc AIM studies.

Electives
A pool of diverse courses from the fields of computer science, biomedical engineering, bioinformatics, and computational biology will allow the students to choose the ones of interest to strengthen their competences.

Admission Procedure
The MSc AIM is open to high achieving students with a Bachelor 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 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.

Study Structure

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<thead>
<tr>
<th>Semesters 1–4</th>
<th>AI</th>
<th>Medicine</th>
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<tbody>
<tr>
<td></td>
<td>20 ETCS</td>
<td>18 ETCS</td>
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| Foundation     | 20 ETCS |
| Application    | 20 ETCS |
| Electives      | 12 ETCS |
| MSc Thesis     | 30 ETCS |