MSc Artificial Intelligence in Medicine, University of Bern - Timetable Spring Semester 2026 - Second Semester Courses

| Time | Monday | Tuesday | Wednesday | Thursday | Friday |
|---|---|---|---|---|---|
| **8/00 h** | | | | | |
| 8/15 h | | | | | |
| 8/30 h | | | | | |
| 8/45 h | | | | | |
| **9/00 h** | | | | | |
| 9/15 h | | | | | |
| 9/30 h | | | | | |
| 9/45 h | | | | | |
| **10/00 h** | | | | | |
| 10/15 h | 10.15-12.00 | | | | |
| 10/30 h | **Clinical Decision Support** | | | | |
| 10/45 h | | | | | |
| **11/00 h** | | | | | |
| 11/15 h | | | | | |
| 11/30 h | Seminarraum 215, Hauptgebaude | | | | |
| 11/45 h | **Module Medicine** | | | | |
| **12/00 h** | | | | | |
| 12/15 h | | | 12.15-14.00 | | |
| 12/30 h | | | **Trustworthy AI in Medicine** | | |
| 12/45 h | | | | | |
| **13/00 h** | | | | | |
| 13/15 h | | | | | |
| 13/30 h | | | Seminarraum 215, Hauptgebaude | | |
| 13/45 h | | | **Module Application** | | |
| **14/00 h** | | | | | |
| 14/15 h | 14.15 - 17.00 | | 14.15-16.00 | | |
| 14/30 h | **Deep Learning** | | **AI for Medical Time Series Data** | | |
| 14/45 h | | | | | |
| **15/00 h** | | | | | |
| 15/15 h | | | | | |
| 15/30 h | | | Seminarraum 115, Hauptgebaude | | |
| 15/45 h | | | **Module Application** | | |
| **16/00 h** | | | | | |
| 16/15 h | | | | | |
| 16/30 h | Horsaal 1 001, Engehalde, E8 | | | | |
| 16/45 h | **Module AI** | | | | |
| **17/00 h** | | | | | |
| 17/15 h | | | | | |
| 17/30 h | | | | | |
| 17/45 h | | | | | |
| **18/00 h** | | | | | |

**Module Medicine (mandatory)**

- Clinical Implementations of AI I (3 ECTS)
- Clinical Decision Support (3 ECTS)

**Module AI (mandatory)**

- Deep Learning (5 ECTS)

**Module Applications (mandatory)**

- AI for Medical Time Series Data (3 ECTS)
- Trustworthy AI in Medicine (3 ECTS)

## Module Foundation

The selection of courses in the module *Foundation* depends on the students' individual scientific background. The following list is a pool of suggested courses. Students may consider courses not found on the list.

- 3D Geometry Processing (5 ECTS)
- Algorithms, Probability and Information (5 ECTS)
- Applied Biostatistics II with practicals (4 ECTS)
- Ethical and Legal Issues (3 ECTS) - can also be elective
- Graph-Based Pattern Recognition (5 ECTS)
- Introduction to Data Science with Python with Practicals (5 ECTS)
- Introduction to Medical Statistics (3 ECTS)
- Seminar Applied Optimisation (5 ECTS)
- Seminar Cryptography and Data Security (5 ECTS)
- Seminar Machine Learning and Artificial Intelligence (5 ECTS)

## Module Electives

The selection of courses from the module *Electives* depends on the students' interests. The following list is a pool of suggested courses. Students may consider courses not found on the list.

- Biomedical Sensors (3 ECTS)
- Biomedical Signal Processing and Analysis (3 ECTS)
- C++ Programming (3 ECTS)
- Clinical Epidemiology and Health Technology Assessment (2 ECTS)
- Computer-Assisted Surgery (3 ECTS)
- Databases (5 ECTS)
- Finite Element Analysis I (3 ECTS)
- Fundamentals of Quality Management and Regulatory Affairs (4 ECTS)
- Introduction to Image Analysis (5 ECTS)
- Introduction to Precision Medicine (3 ECTS)
- Medical Robotics (3 ECTS)
- Privacy and Data Security (5 ECTS)
- Proteomics & Metabolomics (lecture and practicals) (5 ECTS) - Various dates so not in timetable
- Regenerative Dentistry for Biomedical Engineering (2 ECTS)
- Rehabilitation Technology (3 ECTS)
- Seminar Advanced Topics in Reinforcement Learning and Decision Making (5 ECTS)
- Seminar Cognitive Computational Neuroscience (5 ECTS)
- Seminar Explainable AI (5 ECTS) - see JMCS website
- Semnnar Life Engineering (5 ECTS) - see JMCS website