M.Sc. AI in Biomedicine

List of Seminars WiSe 2026/2027

Students must complete one of the following seminars:

- IN2107 Master Seminar (different lecturers) or
- EI77009 Seminar Machine Learning (Prof. Heckel).

Different topics are offered for the module IN2107 each semester. The seminar topic should be chosen within the focus subject and included in the study plan which is discussed with the mentor. Here, we provide a list of recommended seminars for AIBM students. The list is not exhaustive; students may also choose another seminar in consultation with their mentor.

- AI-driven Tools for Medical Imaging and Visualization (Gonzales Osorio, Kögl, Schnabel)
- AI in Medicine: Learning from Incomplete Patient Data (Bercea, Bressem, Kim, Schnabel)
- Large Language Models in Medicine (Moll, Rückert, Szep)
- From General to Clinical: Adapting Foundation Models for Medical Imaging (Schnabel, Ambekar, Daza Barragan)
- AI Research in the Large Language Models Era (Huang, Rückert, Stolt Ansó)
- Deep Learning for Medical Applications (Navab, Faghihroohi, Eck, Li)
- Computer Vision in the Operating Room (Roth, Schieber)
- Multimodal Learning for Medicine & Healthcare: The Challenges and Opportunities (Daza Barragan, Hasny, Li, Schnabel)
- Machine Learning in Neuroimaging (Wachinger)
- Generative AI and World Models (Nießner, Chi, Benedi San Millan, Giebenhain)
- Agents for 3D Generative AI (Nießner, Benedi San Millan, Oroz, Giebenhain)
- Computational Aspects of Machine Learning (Bungartz, Bräutigam, Burak, Sun)
- Responsible AI and Language Technologies (Dementieva, Fraser)
- Open Generative AI Systems: LLMs, Video Models, and World Models (Lasser)
- Generative AI in Computer Vision (Cremers, Saroha)
- Inductive biases in AI4Science (Jegelka, Santos Escriche)
- Collaborative Robotics and Assistive Technology for Advanced Human-Robot Interaction (Masia, Aimi, Borriello, Masiero)
- Participatory AI and the EU's AI Act (Großklags, Ullstein)
- 3D Machine Learning (Dai, Liu, Boudjoghra, Giebenhain)

Registration for the module IN2107 is not possible via TUMonline, but only through participating in the matching system. All necessary information can be found on docmatching.in.tum.de.