

AIS

BSc

Full-time, English Language

Artificial Intelligence Solutions

Develop Al solutions for a wide range of practical tasks

Artificial Intelligence (AI) has been causing a media frenzy about the potential benefits for the economy in general, and the world of work in particular. However, AI is not limited to chatbots and language models, but has many more diverse and more complex applications. And for the full range of possibilities to be exploited, it will require comprehensively trained AI engineers who can master practical challenges.

Such mastery will only be possible by combining AI methodologies with other essential competences – such as computer science, software development, project management and various soft skills.

Career Profile

You'll acquire all the skills necessary to see through AI projects from conception to implementation. This includes skills in the acquisition and pre-processing of data, the integration of ready-made AI components, as well as competence in customized machine learning models.

Once an Al solution has proven to be functional, it will need implementation, which, in turn, requires competences in cloud computing and/or embedded systems, plus software development methods and project management.

Due to the practical orientation of the study program, you will become familiar with applying Al methods of computer vision and natural language processing in domains such as industry, medicine/healthcare, business and finance.

Graduates will work, for example, as AI engineers and data scientists, as product/process owner for intelligent systems, or will advise software companies on how to integrate AI components into software systems.

Profile

| Al Methods | 21% |
|--|------|
| Al Applications (including Electives) | 10 % |
| Software Development & Software Architectures for Al | 16 % |
| Foundations of Computer Science | 8% |
| Applied Mathematics | 6% |
| Data Management and Data Processing | 6% |
| IT Law & IT Business, Soft Skills | 8% |
| Practical Work (projects, internship, bachelor thesis) | 25% |

Degree

→ Bachelor of Science in Engineering (BSc)

Duration

→ 6 Semester (180 ECTS)

Annual Intake

→ 20

Admission Requirements

→ university entrance qualification (e.g. A-Levels, university pre-entry certificate, completed vocational matriculate exam) English at B2 level

Application

→ Online – details & deadlines on fh-ooe.at/application

Admission Procedure

→ by interview

Language of Instruction

→ English

Semester Abroad

→ Semesters abroad and internships are encouraged and actively supported.

Tuition Fees

- → EU/EEA citizens: 363.36 EUR per semester (plus Austrian Student Union fee).
- → Citizens from non-EU/EEA countries: 726.72 EUR per semester (plus Austrian Student Union fee).



Curriculum

| Al Methods Introduction to Al | Core and elective courses E | CTS / semester | 1 | 2 | 3 | 4 | 5 | 6 | | |
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| Logic and Symbolic Al | → Al Methods | | | | | | | | | |
| Machine Learning 5 5 Heuristic Optimization and Symbolic Regression 5 Neural Networks & Deep Learning 5 5 Time Series Analysis 3 Computer Vision 5 5 Natural Language Processing 5 5 Electives 5 5 Software Development & Software Architectures for AI 0 0 Object-Oriented Programming in Python 5 5 Project Management 2,5 5 DevOps/MLOps 2,5 5 Software Architectures for Big Data 5 6 IT and Data Security 2 2 2 Embedded AI 5 5 8 Requirements Engineering 2 2 2 U & UX Design 2,5 5 * Foundations of Computer Science 5 4 Foundations of Computer Science 5 4 Foundations of Computer Science 5 4 Basics of Inear Algebra and Calculus 5 5 | Introduction to Al | | 5 | | | | | | | |
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| Bachelor Thesis & Examination 10 | Internship | | | | | | 25 | | | |
| 10 | Bachelor Thesis & Examination | | | | | | | 10 | | |

Study Focus

- Machine Learning and many other Al Methods, such as, various architectures of (deep) neural networks, bagging and boosting, support vector machines, symbolic Al, symbolic regression, etc.
- Al Technologies and Al Software Components in computer vision, natural language processing, and time series analysis
- → Software Development & Computer Science Foundations
- → Cloud Computing & Embedded Systems
- → IT Law & IT Business
- Descrives: 5 ECTS in the 6th semester can be chosen from a catalogue of several courses with advanced AI Applications in domains such as industry, medicine/healthcare, business and finance.

Practical Experience and Research

Due to the practical orientation of the study program, Al solutions are developed and implemented as part of projects from the 4th semester onwards. Project ideas usually come from partner companies or one of our numerous research groups. The range of topics is broad, as Artificial Intelligence plays a role in most of our partner companies and our research groups on campus.

Study Abroad

The study program is internationally oriented, which is why the language of instruction is English. In particular, the professional internship in the 5^{th} semester can be completed abroad. There is also an option to study at one of the faculty's numerous partner universities in the 6^{th} semester.

Good to Know

→ Required level in English: B2 (level equivalent to Austrian "Matura" school-leaving certificate).

Contact

Head of Studies

→ FH-Prof. Univ.-Doz. DI Dr. Ulrich Bodenhofer

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