

Descriptions and regulations for the Bachelor's degree programme *Applied Artificial Intelligence* (SPO 2025) **winter semester 2025/26**

These descriptions and regulations are intended to provide an overview of the most important regulations and their current design. It applies to all students who begin their studies from the winter semester 2025/26 and is based on the Study and Examination Regulations of 09.04.2024 and the General Examination Regulations of Rosenheim Technical University of Applied Sciences in their current version. In all cases of doubt, the provisions of these regulations apply (cf. section 8, References).

1. Study/Subject semester

In the Study and Examination Regulations, the terms "study semester" and "subject semester" are used as follows:

- Study semester: Semester according to the programme overview or the semester to which a course is assigned according to the programme overview (cf. also the overview in section 10).
- Subject semester: The semester in which a student has been enrolled in the current degree programme. Please note that the subject semester may differ from the number of semesters actually studied in this degree programme (e.g. if modules from a previous degree programme have been credited).

2. Structure of the study programme

The Bachelor's programme *Applied Artificial Intelligence* has a standard period of study of seven semesters. It comprises six theoretical semesters and one practical semester that is relevant to the profession. The practical study semester is conducted as the 5th study semester. The programme ends in the 7th semester with the Bachelor's thesis. The language of instruction in this degree programme is English.

The following regulations must be observed:

1. The examinations in the modules "*Programming Basics*," "*Computer Science Fundamentals*," and "*Linear Algebra 1*" must be taken by the end of the 2nd semester. If this deadline is exceeded, the associated examinations shall be deemed to have been taken for the first time and not passed.
2. Modules assigned to the 3rd study semester or higher may only be taken by those who have achieved at least 30 credit points (CP).
3. At least 30 CP must have been achieved by the end of the 3rd semester. If this is not the case, all examinations not taken so far shall be deemed to have been taken and finally not passed. The degree programme is thus terminated.
4. Modules assigned to the 5th semester or higher (incl. the practical study semester) may only be taken by those who have achieved at least 80 CP.
5. Students who have successfully completed the practical study semester and have achieved at least 160 CP may begin the bachelor's thesis.
6. All modules (i.e. also FWPM and the Bachelor's thesis) in which no examination has been taken by the end of the 9th semester shall be deemed to have been taken for the first time and not passed from this point on.
7. The module "*Practical Software Engineering*" (No. 22) can only be taken by those who have successfully completed the examination in "*Software Engineering*" (No. 16) and the supervised practical phase of the practical study semester "*Internship*" (No. 31).
8. Only those who have attended "*Internship Seminar Part 1*" (No. 29) are entitled to enter the supervised practical phase "*Internship*" (No. 31).
9. Only those who have attended "*Internship Seminar Part 1*" (No. 29), have completed the supervised practical phase "*Internship*" (No. 31) and have submitted the practical report are entitled to participate in "*Internship Seminar Part 2*" (No. 30).

The allocation of courses to the study semesters can be seen in the chart in section 10.

3. Subject-specific compulsory elective modules (FWPM)

Each student must select a total of 20 CP modules from the FWPM catalogue. The current teaching contents and study objectives of the FWPM offered in this semester can be found in the module handbook (cf. section 8, References). The recognition of further modules as FWPM (e.g. in the case of semesters abroad or from other degree

programmes) is possible upon application if the content is suitable; it is recommended to contact the subject advisor in advance in case of doubt.

The examinations taken first are binding for the Bachelor's examination, unless they were explicitly marked as elective modules on the list of participants for the examination. All further examinations then automatically count as elective modules.

The FWPM election usually starts 2 to 3 weeks before the beginning of the respective semester. The exact period will be announced in time. The choice is binding. However, it does not include the registration for examinations.

FWPMs only take place if the minimum number of participants of 10 is reached. The maximum number of participants is limited to 20. Modules from the Master's programme may not be selected in the Bachelor's programme.

4. Practical study semester / Internship

The practical semester is conducted in the 5th semester. Only students who have achieved at least 80 CP are entitled to enter the practical semester. It comprises a supervised practical phase of 18 weeks, which must be completed in relevant companies, and is supplemented by practical courses. Only students who have attended the module "Internship Seminar Part 1" are entitled to enter the supervised practical phase. It is successfully completed if the required practical periods with the prescribed contents are proven by a certificate from the training centre that corresponds to the model provided by the university and a proper practical report has been submitted.

The practical phase can only be waived in exceptional cases. The minimum requirement is a relevant, predominantly related professional activity of at least two years' duration or a completed, relevant apprenticeship. Further information can be found in the information sheet "Detailed information on the practical semester", see references.

The modules "*Internship Seminar Part 1 & 2*" (No. 29 and No. 30) are accompanying the practical semester. "*Internship Seminar Part 1*" takes place after the examination period of the summer semester, "*Internship Seminar Part 2*" at the end of the winter semester. The examinations take place during "*Internship Seminar Part 2*" (all dates for "*Internship Seminar Part 1 & 2*" according to the notice board).

5. Examinations

In order to take part in all examinations, students must register (electronically) on time via the Examinations Office. Non-attendance at the examination counts as an effective withdrawal - except in the case of repeat examinations and examination papers. In the above-mentioned special cases, withdrawal is only possible in justified cases via an application to the examination board.

Failed examinations must be repeated after each semester. If the examination can only be passed by taking part in a course which does not take place in the following semester, the repeat examination must be taken by the end of the semester following the following semester. A new registration is required for all repeat examinations.

6. Bachelor's thesis

The prerequisite for the application for the issue of a Bachelor thesis topic is the successful completion of the practical study semester and the achievement of at least 160 CP. The Bachelor thesis must be registered via the online system of the university (cf. section 8, References) and submitted no later than five months after registration (it should be noted that the deadline stated in section 3 point (6) has priority here). The expected processing time is approximately two months (full-time). The start of processing may not be before the registration. A colloquium is also included in the assessment of the thesis. At least one of the two examiners must be a full-time professor of the Faculty of Computer Science or the Faculty of Applied Natural Sciences and Humanities at Rosenheim University of Applied Sciences. The Bachelor's thesis can be written in German or in English and must contain an abstract in German. It must be submitted to the examination office in accordance with the regulations of the General Examination Regulations. The Bachelor thesis must be presented and defended orally within 30 minutes. The provisions on oral examinations in §16 of the General Examination Regulations shall apply accordingly to the defence. The presentation takes place within the framework of the module "*Bachelor's Thesis Seminar*" (Module No. 27). If it will be assessed with the grade "not sufficient", it can be repeated once with a new topic.

7. References

General Examination Regulations:

<https://www.fh-rosenheim.de/home/infos-fuer/studierende/studienorganisation/formalia/studienregelungen/studien-und-pruefungsordnungen/>

Study and Examination Regulations, FWPM List:

https://www.th-rosenheim.de/fileadmin/formalia/SPOs/AAI/IF_AAI_B_SPO_2025_2_14.05.2025_.pdf

Module handbook:

https://www.th-rosenheim.de/fileadmin/fakultaeten/inf/02_Dokumente/Dok_AAI-B-spezifisch/AAI_Bachelor_Modulhandbuch.pdf

Information on the Practical Semester:

Thesis:

<https://www.th-rosenheim.de/studium-und-weiterbildung/im-studium/studienorganisation/abschlussarbeiten>

8. Faculty management and counselling

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Subject Advisory Guidance:	Prof. Dr. Wolfgang Mühlbauer

9. Programme overview

1st Semester		2nd Semester		3rd Semester		4th Semester		5th Semester		6th Semester		7th Semester	
Winter		Summer		Winter		Summer		Winter		Summer		Winter	
SWS	CP	SWS	CP	SWS	CP	SWS	CP	SWS	CP	SWS	CP	SWS	CP
24	28	24	29	26	32	24	30	4	30	26	32	13	29
Programming Basics (6 / 7)		Object-Oriented Programming (4 / 5)		Database Systems (6 / 7)		Software Engineering (4 / 5)		Internship Seminar Part 1 (2 / 3)		Practical Software Engineering (6 / 7)		Computer Vision (4 / 5)	
Computer Science Fundamentals (6 / 7)		Theoretical Computer Science (4 / 5)		IT Systems (4 / 5)		Neural Networks and Deep Learning (4 / 5)		Internship 18 weeks (0 / 24)		IT Security (4 / 5)		FWPM (8 / 10)	
Linear Algebra (6 / 7)		Introduction to AI (4 / 5)		Supervised Learning (4 / 5)		Data Science (4 / 5)				Natural Language Processing (4 / 5)		Bachelor's Thesis (0 / 12)	
Analysis 1 (6 / 7)		Analysis 2 (6 / 7)		Unsupervised and Reinforcement Learning (4 / 5)		Embedded Artificial Intelligence (4 / 5)				FWPM (12 / 15)			
		Stochastics (6 / 7)		Numerical Methods and Optimization (4 / 5)		IT Law & Ethics (4 / 5)							
				Digital Business Models (4 / 5)		Project Management (4 / 5)		Internship Seminar Part 2 (2 / 3)				Bachelor's Thesis Seminar (1 / 2)	

Modul (SWS / CP)	CP
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CP Credit Points

BA Bachelor's Thesis

SWS Semesterwochenstunden $\triangleq$ contact hours

Artificial Intelligence
Computer Science
Mathematics

Compulsory Elective Modules
Internship and Bachelor's Thesis
Core Competencies / Soft Skills

Stand: 01.04.25

Supplement to the curriculum for the bachelor's degree program in Applied Artificial Intelligence: Internationalization / study-related stays abroad

a) Internship Abroad / Mobility Window

An 18-week internship is planned in the **5th semester**. This internship can be completed at home or abroad.

General information about the internship semester can be found at <https://www.th-rosenheim.de/en/studies-and-further-education/during-studies/study-organisation/internship-semester-and-pre-practical> ("Praktikantenamt").

Information about internships abroad can be found at <https://www.th-rosenheim.de/en/international/outgoings/internships-abroad> (International Office).

b) Studying Abroad / Mobility Window

The 6th semester is recommended for a semester abroad. This semester contains many courses that make it easier to recognize study and examination achievements taken abroad, amounting to up to 30 ECTS CP per semester.

Information about studying abroad can be found at <https://www.th-rosenheim.de/en/international/outgoings/studying-abroad> (International Office).

c) Studying Abroad / Modules Suitable for Recognition

In principle, the study and examination achievements provided abroad can be counted towards your studies at the Rosenheim University of Applied Sciences, provided there are **no significant differences** in terms of the acquired skills.

The elective modules (FWPM) and the courses from the 6th semester are fundamentally well suited for the recognition of study achievements acquired abroad (see study semester abroad), up to a total of 30 ECTS CP per semester. Please discuss your planned stay abroad at an early stage with the International Coordinator at the Faculty of Computer Science and coordinate your planned subject catalog before your stay abroad.

Ultimately, the examination committee ("Prüfungskommission") decides on the recognition of study achievements provided abroad. In the Faculty of Computer Science, this is currently being handled in such a way that the International Coordinator is a member of the examination committee and that he/she is tasked with the decision on recognition.

You can find information on the recognition of study achievements from abroad <https://www.th-rosenheim.de/en/international/outgoings/studying-abroad/recognition> (International Office).