

StV Informatik & AI

Informatik, Artificial Intelligence,
Computer Science



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AI BACHELOR INFO EVENT 2022

Getting your degree in 5 easy steps!



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Steps

1. Finish compulsory courses (*Pflichtkurse*)
2. Write Bachelor's Thesis (*Bachelorarbeit*)
3. Examination Roster (*Prüfungsraster*)
4. Any issues? Fix up your Roster! Else: Wait some time. . .
5. Documents arrive via snail mail — Profit!

FINISHING COMPULSORY COURSES



Course Overview

Annex 1: Global map of study subjects – Bachelor's Program "Artificial Intelligence" (2021)

1 st Semester (WS)		2 nd Semester (SS)		3 rd Semester (WS)		4 th Semester (SS)		5 th Semester (WS)		6 th Semester (SS)		
Subject/Course	ECTS	Subject/Course	ECTS	Subject/Course	ECTS	Subject/Course	ECTS	Subject/Course	ECTS	Subject/Course	ECTS	
AI Basics and Practical Work Hands-on AI I (1.5 VL) Hands-on AI I (1.5 UE) Introduction to AI (3 VL)	6.0	AI Basics and Practical Work Hands-on AI II (1.5 VL) Hands-on AI II (3 UE)	4.5	AI Basics and Practical Work Artificial Intelligence (3 VO) Artificial Intelligence (1.5 UE)	4.5	AI Basics and Practical Work Seminar in AI (3 SE)	3.0	AI Basics and Practical Work Practical Work in AI (7.5 PR)	7.5			25.5
AI and Society Lecture Series Artificial Intelligence (1.5 KV) Responsible AI (3 KV)	4.5	AI and Society Technology and Society (3 KV)	3.0							AI and Society Gender Studies	3.0	10.5
Computer Science Programming in Python I (3 VL) Programming in Python I (3 UE)	6.0	Computer Science Algorithms and Data Structures 1 (3 VL) Algorithms and Data Structures 1 (1.5 UE) Programming in Python II (1.5 VL) Programming in Python II (1.5 UE)	7.5	Computer Science Algorithms and Data Structures 2 (3 VL) Algorithms and Data Structures 2 (1.5 UE)	4.5							18.0
		Data Science Statistics for AI (3 VL) Statistics for AI (3 UE)	6.0	Data Science Basic Methods of Data Analysis (3 KV) Visual Analytics (3 VL) Visual Analytics (1.5 UE)	7.5	Data Science Computational Data Analytics (3 KV) Learning from User-generated Data (3 VL) Learning from User-generated Data (1.5 UE)	7.5	Data Science Introduction to Computational Statistics (3 VL) Introduction to Computational Statistics (1.5 UE) Natural Language Processing (1.5 VL) Natural Language Processing (1.5 UE)	7.5	Data Science Digital Signal Processing (3 VL) Digital Signal Processing (1.5 UE)	4.5	33.0
Knowledge Representation and Reasoning Logic (3 VL) Logic (1.5 UE)	4.5					Knowledge Representation and Reasoning Formal Models (3 VL) Formal Models (1.5 UE)	4.5	Knowledge Representation and Reasoning Computational Logics for AI (3 VL) Computational Logics for AI (1.5 UE)	4.5			13.5
				Machine Learning and Perception Machine Learning: Supervised Techniques (3 VL) Machine Learning: Supervised Techniques (1.5 UE)	4.5	Machine Learning and Perception Machine Learning: Unsupervised Techniques (3 VL) Machine Learning: Unsupervised Techniques (1.5 UE) Machine Learning and Pattern Classification (3 VL) Machine Learning and Pattern Classification (1.5 UE)	9.0	Machine Learning and Perception Reinforcement Learning (3 VL) Reinforcement Learning (1.5 UE)	4.5			18.0
Mathematics Mathematics for AI I (6 VL) Mathematics for AI I (3 UE)	9.0	Mathematics Mathematics for AI II (6 VL) Mathematics for AI II (3 UE)	9.0	Mathematics Mathematics for AI III (6 VL) Mathematics for AI III (3 UE)	9.0	Mathematics Numerical Optimization (3 VL) Numerical Optimization (1.5 UE)	4.5					31.5
						Area of Specialization	1.5	Area of Specialization	3.0	Area of Specialization	7.5	12.0
								Free Electives	3.0	Free Electives	6.0	9.0
										Bachelor's Thesis Bachelor's Thesis Seminar in AI (9 SE)	9.0	9.0

Getting the Curriculum (Contains Overview)

JKU → Top Navigation → Degree Programs → All Degree Programs → Bachelor Artificial Intelligence (Or click here after downloading these slides)

Bachelor's Degree in Artificial Intelligence.

Autonomous vehicles, healthcare robots, intelligent household appliances, autonomous irrigation and fertilizer systems, smart digital assistants: Artificial Intelligence is finding its way into our everyday lives. Be at the forefront to help shape the great digital revolution.

Experts say that Artificial Intelligence (AI) will be more groundbreaking than electricity. Those who are one step ahead can play a key role in contributing to the way our future lives will be shaped. The new Bachelor's degree program in Artificial Intelligence (AI) provides you with an ideal start to this mission. You control how and what machines learn. You develop the learning algorithms and methods needed for making intelligent decisions.

Why is the JKU perfect for this? Because Linz is a globally recognized hot-spot in AI research. Because this is Europe's first academic degree program for AI. Because the program is international and offered in English. But above all: Because you don't just want to experience the future, you want to actively create it.

Key Facts
Degree Bachelor of Science (BSc)
Duration 5 Semesters
ECTS 180 Credits
Language English (Level B2)
Location: Linz optional with remote learning elements Campus Map
Location: Vienna Optional, with remote learning elements Site Information (German only)
Location: Regenz Beginning in the Fall of 2021 Site Information (German only)
Program Full-Time
DOWNLOADS & SERVICES

Downloads

- › Curriculum (valid from 01.10.2021)
- › Curriculum (valid to September 30, 2021)
- › Course Catalog
- › Studies Information Brochure

Other Facts from the Curriculum

- The curriculum is the *second most important document* to finish your studies! What's defined and explained there is the stuff that counts.
- The “Seminar in AI” is the seminar you have to do with some institute (not like in Informatik where you have to do *some* seminar as part of specialization — here there's a course for it)
- If courses you “used” for the admission granting Bachelor's Degree are also courses of the mandatory subjects of your elective track of choice in your future Master's, you may replace these courses with others from the subject Area of Specialization. (Wrong choices are not “blocking” your Master's! This fix is only guaranteed for the AI Master's though, others may have issues.)
- More information on courses and their modes in the *Studienhandbuch*: studienhandbuch.jku.at (Or direct Link for AI)

Most Important Curriculum Fact

Read it.

And I recommend to also read the one from your next program proactively rather than retroactively. . .

THESIS



What does the Curriculum say?

§ 6 Bachelor's Thesis

(1) Students of the Bachelor's program Artificial Intelligence must complete a Bachelor's Thesis according to § 80 UG in the course SE "Bachelor's Thesis Seminar in AI" (536BAARBTSS19).

(2) The Bachelor's Thesis will be graded in combination with the "Bachelor's Thesis Seminar in AI" by the teacher of this course.

(3) The Curricular Committee for Artificial Intelligence may specify guidelines for the formal structure of a Bachelor's Thesis.

(4) The topic of the Bachelor's Thesis has to be expressed in the certificate.

So? ...

- Find a supervisor and topic! By writing speakers from this evening, looking at institute homepages or even coming up with ideas on your own and looking for supervisors with fitting prior work.
- Maybe use a [template from JKU](#), [this](#), or something from your institute.
- Always stay in contact with your supervisor! Don't just do *stuff* and arrive with some finished text, only for you having to revise all your hard work.
- `while not supervisor.is_done(thesis): work_on(thesis)`
- The course “Bachelor’s Thesis Seminar in AI” is the thesis course where the grade arrives in KUSSS after finishing (like Informatik’s *Projektpraktikum*)
- Peak efficiency: “Seminar in AI”, “Practical Work in AI”, and “Bachelor’s Thesis Seminar in AI” on same institute with similar enough topics so synergies emerge. Leads to more interesting work and less friction!

EXAMINATION ROSTER



Where? How??

jku.at/en/degree-programs/students/degree-completion/

1. Completing a Bachelor's Degree
2. Engineering and Natural Sciences
3. [Examination Roster 033 536](#)
4. Slowly and tediously copy-pasting information from the [Help Examination Rosters](#) tool from KUSSS (until the new KUSSS does this automatically — soon!)
5. Select “Registration for the following study” at the end of the roster to directly continue with your AI Master's.
6. Send to pruefung-tn@jku.at when done.

THE LONG WAIT



How Long?

2 weeks to 1 month usually

Eventually change stuff you did wrong.

PROFIT!



It is done!

After receiving your degree and being in the right course of study in KUSSS, you really are done with the Bachelor's!

Now sail forth; onwards to new challenges! (Master's? . . .)

Frequently Asked Questions

When to begin the Bachelor's Thesis? See Curriculum. There is no explicitly defined starting point though, you could also start early in the second semester or late after the sixth.

Do I need other courses in order to start my Thesis? Also no, nothing is stated in the Curriculum. Normally you would work yourself through “Seminar in AI”, “Practical Work in AI” and then “Bachelor's Thesis” though, which makes the whole process easier and more streamlined.

Informatik \Leftrightarrow AI

Feeling you got off at the wrong station? You can accredit some courses between AI and Informatik: [See AI Program Details \$\rightarrow\$ Accreditation and Credit Transfer](#)

Closing Tips

- Always stay in contact with your thesis supervisor
- Don't overwork yourself, think of your scope (and the ECTS the thesis/project/seminar is worth) and try to make the best of it
- Try to keep cool when something doesn't immediately go as planned
- Party when the work is done and celebrate your achievements!

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