

CAS LLMs and AI Agents (Bootcamp)

Stand: 03.09.2026 / Änderungen vorbehalten

MyCampus (<https://mycampus.hslu.ch>) bietet Ihnen die Möglichkeit, den Stundenplan direkt auf alle gängigen Geräte mit Internetzugriff herunterzuladen. Das Login erhalten Sie vor dem Kursstart.

Wochentag	Datum	Zeit	Lektionen	Bezeichnung	Module Description
Freitag	16.10.2026	09:15 - 10:00 Uhr	1	Introduction to the CAS in LLMs and AI Agents (Bootcamp)	
Freitag	16.10.2026	09:15 - 16:45 Uhr	7	Module 1: Foundations of LLMs and AI System Design	Core concepts of NLP and large language models: tokenization, vector representation, transformer-based models, prompt engineering. Hands-on exercises building a first structured LLM application.
Freitag	23.10.2026	09:15 - 16:45 Uhr	8	Module 1: Designing Reliable LLM Applications	Structured model responses, clearly defined inputs, expected results and known boundaries. Participants scope their initial application — the starting point of the transfer project.
Freitag	30.10.2026	09:15 - 16:45 Uhr	8	Module 2: Knowledge Systems and Retrieval-Augmented Generation (RAG)	Connecting LLM applications to documents, internal information and knowledge sources. Building retrieval-augmented generation pipelines for grounded, verifiable answers.
Samstag	31.10.2026	09:15 - 16:45 Uhr	8	Module 2: Trustworthy Knowledge Systems	Retrieval quality, handling of confidential data, access rights, and the updating and maintenance of knowledge sources in production.
Freitag	13.11.2026	09:15 - 16:45 Uhr	8	Module 3: AI Agents and the Model Context Protocol	Chatbots vs. automated workflows vs. AI agents; building agents that structure tasks, operate tools and make decisions; the Model Context Protocol (MCP); agent orchestration and multi-agent workflows.
Samstag	14.11.2026	09:15 - 16:45 Uhr	8	Module 3: Controlled, Governed Agent Systems	Building a controlled agent that interacts with a tool or external system. Focus on permissions, approvals, error handling and traceable decisions.
Freitag	20.11.2026	09:15 - 16:45 Uhr	8	Module 4: Bias, Fairness and Red Teaming	Bias recognition, fairness and transparency in LLM-based systems. Practical red teaming to probe models for weaknesses, undesired output and safety risks.
Samstag	21.11.2026	09:15 - 16:45 Uhr	8	Module 4: Evaluation, Risk and Guardrails	Systematic evaluation of LLM applications: test cases, difficult inputs, quality criteria, measurement of response quality. Risks — hallucinations, jailbreaks, prompt injections, data loss, unwanted agent actions — and the guardrails, approvals and rules that address them.
Freitag	27.11.2026	09:15 - 16:45 Uhr	8	Module 5: Customizing and Adapting Models	When existing models are sufficient vs. when adaptations or smaller specialized models make sense. Weighing effort, quality, data protection and benefit.
Samstag	28.11.2026	09:15 - 16:45 Uhr	8	Module 5: Deployment: Cloud, On-Premises, Hybrid	Deployment forms for LLM-based solutions and their implications for cost, speed, data protection, reliability and integration into existing IT landscapes.
Freitag	04.12.2026	09:15 - 16:45 Uhr	8	Module 6: Packaging and Releasing LLM Applications	Technical packaging, evaluation and release of LLM applications: automated evaluation, versioning, interfaces, logging and monitoring.
Samstag	05.12.2026	09:15 - 16:45 Uhr	8	Module 6: LLMOps: Operating in Production	Monitoring quality, cost and system behaviour after go-live; handling errors and failures; continuous improvement. Participants finalize the operational concept for their transfer project.
Freitag	11.12.2026	09:15 - 16:45 Uhr		Reservetag	
Samstag	12.12.2026	09:15 - 16:45 Uhr		Reservetag	
Freitag	18.12.2026	09:15 - 16:45 Uhr		Reservetag	
Samstag	19.12.2026	09:15 - 16:45 Uhr		Reservetag	
Weihnachtsferien (20.12.2026 - 03.01.2027)					
Freitag	26.03.2027	09:15 - 16:45 Uhr	8	Präsentation der finalen CAS-Transferarbeit	

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- Module**
- M1: Foundations of LLMs and AI System Design
 - M2: Knowledge Systems and Retrieval-Augmented Generation (RAG)
 - M3: AI Agents and Controlled Workflows
 - M4: Quality, Safety and Responsible Use
 - M5: Customizing, Deploying and Scaling Models
 - M6: LLMOps and Operating Production-Grade AI Systems

- Eckdaten**
- 00.00.2026 Eingabeschluss Themeneingaben via Complexis
 - 00.00.2026 Themenfreigabe durch Programmleitung, Zuweisung Betreuer und Gruppenbildung via Complexis
 - 00.00.2027 Abgabe CAS-Transferarbeit via Complexis
 - 00.00.2027 Abgabe CAS-Transferarbeit Präsentation via Complexis
 - 26.03.2027 Präsentation Transferarbeit
 - 00.00.2027 Bekanntgabe Diplomierungsergebnis via MyCampus
 - 00.00.2027 Ablauf Nachbesserungsfrist
 - 23.04.2027 Abschlussfeier

- Unterrichtszeiten**
- 1 09:15 - 10:00
 - 2 10:05 - 10:50
 - 3 11:00 - 11:45
 - 4 11:50 - 12:35
 - 5 13:20 - 14:05
 - 6 14:10 - 14:55
 - 7 15:10 - 15:55
 - 8 16:00 - 16:45