Philosophy and Theory of Artificial Intelligence (Winter 2025/6): Formalities

Levin Hornischer // October 14, 2025

Welcome to the course *Philosophy and Theory of Artificial Intelligence*! This document collects the relevant organizational information.

Contact The instructor of the seminar is me, Levin Hornischer (you can email me via Levin.Hornischer@lmu.de). During the semester, we meet on:

- Wednesdays, from 12:15 to 13:45 in room 021 (Ludwigstr. 31).

If you have any questions, please do not hesitate to contact me.

Lecture material The materials for the course are provided on the website:

https://levinhornischer.github.io/PhilTheoAI/

We follow the lecture notes provided there which also include all the content information (topics, objectives, prerequisites, etc.).

Assessment If you take the course for credits (9 ECTS-points), you need to write a term paper whose grade will be your final grade for the course. The formalities are as follows.

- Topic: The website lists essay topics that you can choose from. (I might add more as the course progresses.) Your paper should cover the following:
  - Argue for the importance of the chosen topic and identify a clear research question within the topic. The research question should be wide enough to capture an important aspect of the topic, but narrow enough to be answered in an essay. Ideally, the research question poses a yes/no question. Locate your contribution within related work.
  - Your answer to the research question should involve philosophical or mathematical theory that we covered in class or that is closely related to the course.

  - You should also describe an experiment to empirically test your answer to the research question. The description should be detailed in enough for a programmer to code it (which neural network architecture, which hyperparameters, which training data and how to get them, etc.; cf. the 'machine learning pipeline').
  - Ideally, you also implement (a toy-version of) your experiment and describe the empirical results. However, this is not necessary, since coding is not required for the course. If you do not implement your experiment, then describe which results you would expect (e.g., by referring to papers with similar experiments).

- Word limit: max. 6000 words. Please note the number of words at the end of your essay. This is an upper bound (so less words is fine) and it is strict (i.e., no 10% buffer, etc.). To be fair to others, I will ignore any content that comes after the 6000 words.

- Passing grades: 1.0, 1.3, 1.7, 2.0, 2.3, 2.7, 3.0, 3.3 , 3.7, 4.0.

- Grading criteria: For an excellent grade, your paper should excel in the following criteria.

  - *Research question, motivation, and structure*: You have a clearly articulated question and main claim, both of which have to be presented in the introduction; together with the motivation/relevance of the question and the context in which it occurs. The essay is clearly and naturally structured in sections to answer the posed question.
  - *Definition of concepts*: All required concepts are well explained, defined, and referenced.
  - *Literature coverage*: You show that you are familiar with the relevant literature (refer to a substantial amount of publications that are not mentioned in the syllabus of the seminar). You show that you are able to reconstruct arguments from the relevant literature in a concise and accurate way. You also cite relevant empirical results from the AI literature.
  - *Own argument and objections*: You develop an independent and original argument supporting your main claim (not just reconstruct one from the literature). The argumentative structure is made explicit (by an overview in the introduction and by guiding the

reader in the sections of the paper). You anticipate and discuss possible objections to your own arguments. The argument clearly state the assumptions (premises) and is logically correct.

  - *Experiment description*: The suggested experiment indeed checks the answer of the research question, and it is enough detailed enough for a programmer to code it. If not implemented, then reasons for which results to expect are given (e.g., by reference to related work).
  - *Language and formatting*: The essay is typeset in an appealing format (e.g., 12pt, Times New Roman, 1.5 spacing, 3 cm margins), citations are according to academic standards and the references are presented in an detailed and consistent manner (e.g. APA). The essay is written in clear and easy to understand language (as e.g. described in style books). There is no inappropriate language. Spelling and punctuation are largely correct.[1] (This is judged according to the standard of a good non-native speaker of English.)
  - And, of course, you should not plagiarize.

- Deadlines (see here):
  - Registration period for exams and term papers: 12.01. 2026 – 23.01. 2026. (This registration is necessary for writing a term paper and getting the grade/credits.)
  - Deadline for the submission of term papers: 23.03.2026.[2]
- Submission: As PDF to me via email.[3]

[1] In case you are dyslexic, this of course does not apply—please let me know if this is the case (of course, I will treat this confidentially).

[2] This deadline is fixed and I cannot change it. For extensions, you need to contact the examination office.

[3] These assessment formalities closely follow the suggestions of Alexander Reutlinger.