



Hochschule für Medien
Kommunikation und Wirtschaft
University of Applied Sciences

H M K W

STO-AI STUDY REGULATIONS – M. A. ARTIFICIAL INTELLIGENCE AND SOCIETIES

Study regulation for the non-consecutive program

M. A. Artificial Intelligence and Societies (AI)

of

HMKW University of Applied Sciences for Media,
Communication and Management

which awards the degree of a *Master of Arts* (M. A.)

Last update: 2023-10-12

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I Preamble

Based on the *Berlin Higher Education Act* ('Berliner Hochschulgesetz', abbr. 'BerLHG') in its version from July 26, 2011 (GVBl. 378 ff.), last amended by Article 1 of the law of September 14, 2021 (GVBl. p. 1039), and based on its '*Basic Study and Examination Regulations for Master's study programs* ('RStPO-Master'), *HMKW Hochschule für Medien, Kommunikation und Wirtschaft* enacts the following specific '*Study Regulations*' (abbr. 'StO-AI') for its study program *Artificial Intelligence and Societies* (abbr. 'MA-AI') which awards the degree of a *Master of Arts* (M. A.).

II Regulations

§ 1 Area of Application

- 1) Following § 1 Abs. 3 RStPO-MA, the present regulations govern the content, the weighting (through ECTS credit points), and the structure of the non-consecutive, distance-learning-based study program *Artificial Intelligence and Societies*, which awards the academic degree of a '*Master of Arts*' (M. A.).
- 2) The present *study regulations* are complemented by the study-specific *curriculum*, which comprises, amongst other things, the *module manual*, which defines formal aspects and main subjects of all modules, and the study-specific *examination regulations*.
- 3) Insofar as these program-specific regulations do not cover certain study-related aspects, the respective regulations of the general *Study and Examination Regulations Framework* for Master's programs of HMKW come into effect.

§ 2 Content

- 1) The applied non-consecutive Master's program *Artificial Intelligence and Societies* of HMKW allows students to deepen and expand their theoretical knowledge about Artificial Intelligence (AI) and its impact on societies, cultures, and environments, as well as their practical skills in leveraging new AI-driven technologies to solve concrete problems in various disciplines. The general goal is the ability to contribute professionally to create sustainable societies with humane living conditions. Thus, the program conveys broad, multi-disciplinary qualifications, aiming at academic excellence as well as employability, with a strong focus on responsible applications of AI-powered technologies.
 - The **core area A** of the Master's program teaches the fundamental historical, ethical, and contemporary approaches and intersections of artificial intelligence, society, and culture. Students learn not only about fundamental anthropological theories of technology and society but also how to conduct qualitative research about the impact of AI in various artificial environments to examine the impact of Artificial Intelligence Technology on individuals, communities, and societies.
 - The **core area B** of the Master's program teaches AI-driven technology for the creative and cultural industries.
 - The **profile** modules deepen knowledge about AI and Societies and skills in machine learning, deep learning, robotics, computer vision, and AI-driven technologies to generate unique and visually striking media results in video, photography, and design.
- 2) Students of the MA-AI program explore the following **main topics**:

AI methodologies, including machine learning, natural language processing, computer vision, intelligent agents, AI-driven generative video, photography, 3D-design, and automatic news; ethical considerations and dilemmas arising with deploying Artificial Intelligence in society: privacy, bias, social justice, transparency, accountability, and fairness in AI systems. Students will engage with anthropological questions about robotics, autonomous driving, and smart homes/cities. Furthermore, the curriculum includes AI for sustainability, disaster research, and climate adaptation. One of the profile modules includes courses about the transnational context, AI in African and Latin American Countries. Additionally, students will explore the future of conversational AI, AI-driven chatbots, usability/UX, and the social implications of AI, including its impact on employment, inequality, and psychological aspects of human-machine interactions.
- 3) The study program is online-based. Some technical classes are optional on-campus classes, which are not compulsory. The instruction language is English.

§ 3 Learning Outcomes

- 1) Graduates of the program have fundamental theoretical knowledge about Artificial Intelligence Technology for Societies and practical competence in Artificial Intelligence Technology for Societies.
- 2) Graduates have a profound knowledge of artificial intelligence technology's history and theory. They are experts in AI bias and ethic discourses and can critically analyze the potential and challenges of new AI technologies for individuals and societies. After this course, students can also identify and understand the fundamental principles of human cognition. They can critically evaluate connectionist models and their capacity to capture human thought processes. Graduates of the program can direct human-AI influences and Usability/UX of AI technology toward desirable outcomes. They know about machine learning, natural language processing, and computer vision. They can identify and apply appropriate AI techniques to solve real-world problems. They can design and implement intelligent agents using machine learning algorithms.

- 3) Graduates of the program will have gained a solid foundation in AI-driven photography, film, and design, and they will be able to develop 3D objects in VR using AI tools. In addition, they will be equipped with the knowledge and skills to create immersive scenarios for VR Headsets and to use and communicate with artificial bodies (avatars).
- 4) Graduates can conduct scientific research in virtual environments using virtual reality headsets, avatars, and hand/ facial-tracking technology. They are familiar with the principles and basic knowledge of artificial intelligence technology for societies. They can analyze these principles in different professional fields, for example, anthropological questions of artificial intelligence and robotic technology, AI-driven health care, AI-driven intelligent homes and cities, autonomous driving, and their impacts on societies. They can conduct qualitative research focusing on the user experience of AI-driven solutions for individuals, companies, and communities. They are familiar with discourses about decolonization and bias in technological AI developments. They can give developer recommendations to companies and programmers, such as about implementing conversational AI systems and other intelligent technology in complex structures of an enterprise.
- 5) Students can analyze real-world case studies and conduct qualitative AI-related ethnographic research. They developed practical skills through hands-on exercises and simulations. By the end of the program, they will have gained a holistic understanding of the applied aspects of AI technology and its implications for societies. They will be equipped with the knowledge and skills necessary to critically evaluate AI systems, propose ethical guidelines about AI-indicated job replacement, and contribute to informed discussions on the responsible implementation of AI in different domains.
- 6) Students have learned about the role of AI in helping us cope with the impacts of climate change, from extreme weather events to sea level rise. Students will also learn about the latest developments in climate modeling and how AI can be used to develop more accurate and reliable predictions of future climate change scenarios. As a result, students will gain a deeper understanding of how AI is changing how we think about sustainability and climate change and how these technologies could profoundly shape our future as resilient and sustainable societies.
- 7) Professional prospects for graduates are focused particularly in positions at companies creating or using artificial intelligence and virtual reality technology; the immersive or virtual reality-technology industry, the generative video industry, AI and VR-storytelling for educational games and museums; anthropological questions of artificial intelligence, social analysis of robotic technology, jobs in governmental and non-governmental organizations in the sector of artificial intelligence technology for sustainable development. AI for climate change impacts, sustainability, and disaster research. AI and VR for the representation of culture and society and the reconstruction of cultural heritage sites.
- 8) Graduates of the program are also qualified for professional fields which require knowledge of Usability/UX Design of Artificial Intelligence Technology and specific online behavior of groups and individuals, and predictions of possible development trends in AI Technology and diverse human-technology interactions. The non-consecutive Master's program *Artificial Intelligence and Societies* enables graduates to work as AI experts in the following fields:
 1. AI-driven generative video and editing for companies, video-streaming, tv-broadcasting
 2. Artificial creation processes in graphic design
 3. AI-driven 3d-design, scenarios, and 360degree video for virtual reality / HMDs (head-mounted display)
 4. AI and cultural heritage / AI-aided reconstruction of sites
 5. AI in the educational field
 6. Ethics of AI technology in journalism, including bias, privacy, accountability
 7. AI algorithms and audience engagement
 8. AI-driven intelligent homes / smart cities

9. Usability/UX design for AI technology
10. AI- and VR technology in the context of museums, galleries, and exhibitions
11. AI-oriented research and education at universities, scientific institutions, and for companies

§ 4 Structure

- 1) The Master's program *Artificial Intelligence and Societies* comprises 120 ECTS credit points (CP) and is structured into four parts:
 - a) Core (30 CP)
 - b) Profile (30 CP)
 - c) Practice / Project (30 CP)
 - d) Master's Thesis (30 CP)
- 2) The **core studies** contain the following two modules:
 1. History and Fundamentals of AI (15 CP)
 2. AI and the Cultural Industries (15 CP)

These two modules convey foundational approaches, discussions, and working methods of Artificial Intelligence Technology.
- 3) Courses of the following three **profile modules** can be chosen to the extent of 30 CP:
 1. Artificial Intelligence Technology and Societies (15 CP)
 2. AI and VR for the Creative and Cultural Industries (15 CP)
 3. Artificial Intelligence and Applied Computer Science (15 CP)

These modules convey basic theoretical concepts and methods as well as specific knowledge in the field of *Artificial Intelligence, Societies, and Cultural Industries* from the perspective of the respective profile.
- 4) The study field **practice/project** contains the following two modules:
 1. AI-driven Media project (15 CP)
 2. Internship (15 CP)

The regulations of the internship are given in Attachment 2.
- 5) After finishing all necessary modules according to sections 2, 3, and 4 of this paragraph, the master's **thesis** has to be written, which is credited with 30 ECTS credit points (30 CP)
- 6) The *module manual* contains information about content, qualification aims, educational units, learning and teaching methods, workload, forms of active participation, time requirements, and frequency of each module.
- 7) The sample study schedule in Attachment 1 shows the recommended chronological structure of the Master's program in *Artificial Intelligence and Societies*.

§ 5 Teaching Methods

- 1) The instruction sessions are primarily online-based, supplemented by phases of optional physical attendance in on-campus technical workshops.
- 2) The content of the online classes is provided through digital learning platforms, using synchronous and asynchronous forms of communication between lecturers and students. Students work autonomously on the range of the multi-media online modules, subsequently participating in a guided discussion in the context of online instruction.

- 3) The phases of in-person attendance take place as block events in the form of on-campus workshops. Their content is taught through lectures, group work, presentations, and discussions.
- 4) Supervision of students and communication between participants is conducted via a digital learning platform, voice and video calls, and email. One person is appointed for each module and the supervision of the students of that module.

III Final clause

§ 6 Coming into effect

This document will be published at HMKW and come into effect on October 01st, 2023.

IV Addendum

Attachment 1: Sample study schedule

(see § 4 Abs. 7, „CP” = ECTS Credit Points / “SH” = Study Hours per Week)

1. Semester Core	2. Semester Profile	3. Semester Project/Practice	4. Semester Examination
Basic modules A and B (both must be taken) <ul style="list-style-type: none"> • A History and Fundamentals of AI 15 CP • B AI and the Cultural Industries 15 CP 	Profile module I and II (2 out of 3 must be taken) <ul style="list-style-type: none"> • AI Technology and Societies 15 CP • AI & Applied Computer Science 15 CP • AI and VR for the Creative and Cultural Industries 	AI-Media Project 15 CP	Master Thesis 30 CP
		Internship (9 weeks) 15 CP	
		Thesis Proposal	
24 SH 30 CP	24 SH 30 CP	24 SH 30 CP	24 SH 30 CP

Attachment 2: Internship regulations

(see § 4 sect. 4)

1. Students of the Master’s program in *Artificial Intelligence and Societies* have to complete an internship of nine weeks which offers insights into possible professional fields according to § 3 sect. 2 and confronts typical practical tasks in AI-related job areas. This allows students to assess the knowledge and skills gained in previous studies. It serves as an orientation towards a reality-based direction of the studies.
2. The search for a suitable placement needs the independent initiative of the student. HMKW’s Career Service can offer support and guidance on demand.
3. The internship can be done in a suitable organization in any country.
4. All students must report their experiences and problems encountered during the internship.
5. The report must cover the following aspects:
 - a) Name and address of the student
 - b) Name and address of the organization which offers the internship and of a contact person therein.
 - c) Time and duration of the internship
 - d) Finding process, preparation, and provision of the internship (regarding contract and fields of activity)
 - e) Short description of the organization and the department the internship was allocated to
 - f) Explanation of one’s own goals, task definitions, areas of training, and relevant procedures
 - g) Which general and study-related kinds of knowledge, skills, and qualifications were used in the internship
 - h) Experiences, knowledge, insights, and competencies which are needed to solve tasks confronted with in the internship and required for future professional activities
 - i) Support by and collaboration with the internship organization
 - j) Assessment of the activities done and experiences made in the internship against the backdrop of intended goals and actual tasks

Attachment 3: Module Manual

see the attached document