§ 49
Master Degree Program
Applied AI Transformation Management (MAI)

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(1) Degree Program Profile
The master's degree program Applied AI Transformation Management is a consecutive degree program with a strongly application-oriented profile that builds on a first professionally qualifying university degree.

(2) Qualification Objectives
Students acquire theoretical and application-oriented competencies for designing, evaluating, implementing, and scaling AI-supported transformation projects in organizations. Upon completion of the program, they are able to systematically analyze transformation dynamics in AI-shaped environments and to consider interactions between technology, processes, organizational structures, governance, and culture.
Graduates are able to identify, evaluate, and prioritize AI use cases, to develop target visions and success criteria, and to translate regulatory and ethical requirements into concrete projects. They possess technical competencies in the field of applied machine learning and understand the end-to-end lifecycle of AI-based systems from data collection to operation.
In addition, they are capable of working responsibly in interdisciplinary teams, communicating complex matters in a manner appropriate to the target audience, and documenting and critically assessing results on a scientifically sound basis.

(3) Curriculum Outline
The master's degree program Applied AI Transformation Management consists of three full-time semesters and can be started in either the summer or the winter semester. Modules are generally offered annually. Compulsory and elective modules are scheduled in the first two semesters. The third semester is dedicated to the writing the master's thesis. The degree program promotes work in interdisciplinary and, where applicable, international or multicultural contexts. A period of study or practical experience abroad as well as the writing of the master's thesis in cooperation with international or external partners is supported, provided that the subject-related, organizational, and examination-related requirements are met.

(4) Required Coursework
The total workload, including the master's thesis, is equivalent to 90 ECTS credits. The modules and courses in the compulsory and elective areas as well as the examinations are listed in the study program and exam plan (para 14).

(5) Areas of Specialization
Not applicable. Individual profile building takes place via the elective modules in accordance with para 9.

(6) Other Written and Practical Assignments (SP)
Examinations of type SP (other written or practical assignments in accordance with § 12 para 1 no. 4 SPOMa (Study and Examination Regulations of the HTWG Konstanz for master's degree programs) in conjunction with Section 32) may, in particular, take the following forms:

AB = written assignment
B = report
HA = term paper
LP = lab work or programming assignment
PR = presentation
R = (class) presentation
S = study project / project work
TE = certificate of attendance

For examinations of type SP, the examiner determines the examination modalities at the beginning of the semester in accordance with § 15 para 2 SPOMa, in particular the examination dates, the type of assignment, and, where applicable, the weighting of individual examination elements.

(7) Teaching and Examination Languages
Courses and examinations in the compulsory modules are conducted exclusively in English.

Courses and examinations in the elective modules may be conducted in German or English in accordance with § 5 SPOMa. The respective language of instruction is also the examination language and is announced at the beginning of the semester.

The master's thesis must be written in English. The Examination Board decides on exceptions to these provisions upon request.

(8) Weighting of Module and Submodule Exams
There are no regulations beyond those set out in § 16 para 2 and § 26 para 2 SPOMa.

(9) Elective Module
Module 7 is an elective module and is used to build an individual profile and set of competencies within the master's degree program Applied AI Transformation Management (MAI). In this module, students must complete coursework totaling 24 ECTS credits from the MAI electives catalog.

The electives catalog is announced at the beginning of each semester. The Program Development Committee decides on the composition of the catalog.

With the approval of the dean of degree program, suitable modules from other master's degree programs that are not included in the MAI electives catalog may also be taken.

(10) Study Trips
Study trips may be offered as part of the degree program.

(11) Master's Thesis
The master's thesis is an independent piece of academic work and is written in English. It documents the handling of a complex, scientifically grounded research question from the field of AI-supported transformation of organizations and value creation systems. The master's thesis may be carried out in cooperation with practice-oriented partnerships. The provisions of § 23 and § 7 of the General Part of the SPOMa apply.

(12) Oral Master's Examination
Not applicable.

(13) Master's Degree
The academic degree "Master of Engineering" (abbreviated: M.Eng.) is awarded.

(14) Study Program and Exam Plan

Module no.	Module/Subject	Type of module	Semester	SWS	ECTS	Ungraded MP or MTP	Graded MP or MTP
1	**AI Transformation & Change, Leadership & Organizational Design**	**PM**	**A**	**4**	**6**		
	AI Transformation & Change			2	3		K60
	Leadership and Organizational Design			2	3		SP
2	**Governance & AI Compliance, AI Ethics & Data Ownership**	**PM**	**A**	**4**	**6**		
	AI Ethics & Data Ownership – Case Studies			2	3		S, PR
	Governance & AI Compliance Seminar			2	3		S, PR
3	**AI Use-Case Discovery & Value Realization (Process, Data & Stakeholders) – Project**	**PM**	**A**	**4**	**6**		**S, PR**
	Value Case, KPI Baseline & Feasibility (Data & Constraints)			2	3		
	Use-Case Discovery & Problem Framing (Process & Stakeholders)			2	3		
4	**Technical AI Foundations: Applied ML, Data Pipelines & Decision Systems**	**PM**	**A**	**4**	**6**		**K120**
	Applied ML, Data Pipelines & Decision Systems			2	3		
	Data Engineering & Quality for AI (Pipelines, Testing, Governance)			2	3		
5	**AI Transformation Execution & Scaling Lab**	**PM**	**B**	**4**	**6**		
	Scaling, Adoption & AI Operations (MLOps/Monitoring)			2	3		S, PR
	Execution & Delivery Management for AI Transformation			2	3		K60
6	**AI Transformation Sprint Project**	**PM**	**B**	**1**	**6**		**AB, PR**
	AI Transformation Sprint Lab (Project-Based Learning)			1	6		
7	**Electives**	**WPM**	**A/B**	**X**	**24**		
	Subjects from the electives Catalog[2]					(X)	X
	Master Thesis	**PM**	**C**		**30**		
	Total for the entire degree program[1]				**90**		

[1] The minimum number of ECTS points is shown; SWS are not specified.

[2] See para. (9)

Abbreviations:

General abbreviations: SWS = contact hours per week during the semester; ECTS = European Credit Transfer System; PM = compulsory module; WPM = elective module; M(T)P = module exam (MP) or submodule exam (MTP)

Types of exams: Kx = written exam (x = duration in minutes); SP = other written or practical assignments; AB = written assignment; PR = presentation; S = study project; X = type of examination depends on the selected course