Personal Study Plan in the Master Study Program
Applied Data Science at Georg-August-University Goettingen
Application Domain: Medical Informatics

Information:
Following § 4 of the examination and study regulations (PStO) in its version AM I 31/07.10.2025 every master student must choose a mentor. The choice should be made before registration to the first examination in the study program. The mentor must be an accredited examiner in the study program, and the mentor should also be the academic supervisor of the master thesis.

Following § 15 para. 3 of the examination and study regulations in its version AM I 31/07.10.2025 every master student must obtain mandatory counseling from the mentor. This serves to draft a personal study plan. The study plan must be supported by the mentor and accepted by the dean for student affairs. The study plan then serves the student as confirmation, that study planning meets the formal criteria. The student keeps the original document. A copy of the accepted study plan is being kept by the dean and the secretary for student affairs.

The numeration of the different module groups in this template follows the numeration in ModulVZ in its version AM II 14/08.10.2025.

Personal Study Plan of

Enrolment No.:
First Term of Master Studies:
Intended Term of Graduation:
Intended Term for Master Thesis:

Overview Master Studies

Area		Minimum of credits	Actual Credits obtained
Fundamentals of Data Science	Core Curriculum (49 C)	32	
Statistical Methods of Data Science		6	
Computer Science Methods of Data Science		5	
Methods of Machine Learning		6	
Electives Data Science	Professionalization Section (41 C)	5	
Application Domain		18	
Key Competencies		12	
Intermediate Sum of Credits			
Further Elective Modules		= 90 – [Intermediate Sum]	
Master's Thesis		30	
Total Sum of Credits		**min. 120**	

Following § 3 para. 2 of the examination and study regulations in its version AM I 31/07.10.2025 mandatory or voluntary “connector courses” must/can be taken. Mandatory connector courses are usually a requirement that must be fulfilled during preliminary admission in order to obtain full admission to the study program.

At the start of their first semester, students have to take mandatory opt-out mentoring, in which existing personal prerequisites of the student are determined. Subsequently, the opt-out mentor (not necessarily the mentor according to § 4 PStO) identifies modules, which the student must not take anymore. If those are electives, they must not be added to the study plan. If those are mandatory modules, they must be exchanged for fitting electives. Secondly, the opt-out mentor identifies modules that are strongly required to take beside possible connector courses, especially in view of the possible choices of application domains. Opt-out mentoring is not documented in this study plan, but the study plan should mirror the opt-out mentoring results.

For _____, opt-out mentoring took place on _____. The opt-out mentoring was conducted by _____.

List of Mandatory Connector Courses

Module No.	Module Title	Passed in	ECTS
		Total ECTS	

List of Voluntary Connector Courses

Module No.	Module Title	Passed in	ECTS
		Total ECTS	

(I. 1.) Core Curriculum (min. total of 49 C)

(I. 1. a.) Fundamentals of Data Science (5 mandatory modules, 32 C)

Module No.	Module Title	Passed in	ECTS
B.Inf.1231	Infrastrukturen für Data Science		6
B.Inf.1236	Machine Learning		6
M.Inf.2101	Best Practice Methods of Privacy and Ethics in Data Science		5
M.MED.0001	Linear Models and their Mathematical Foundations		9
M.WIWI-QMW.0002	Advanced Statistical Inference (Likelihood & Bayes)		6
	Total ECTS		

(I. 1. b.) Statistical Methods of Data Science (1 module, 6 C)

Module No.	Module Title	Passed in	ECTS
M.Inf.2102	Advanced Statistical Learning for Data Science		6
M.MED.0003	Ereigniszeitanalyse		6
M.MED.0021	Experimental Design and Causal Inference		6
M.WIWI-QMW.0001	Generalized Regression		6
	Total ECTS		

(I. 1. c.) Computer Science Methods of Data Science (1 module, min. of 5 C)

Module No.	Module Title	Passed in	ECTS
B.Inf.1244	Data Management for Data Science		5
M.Inf.1139	Privacy-Enhancing Technologies		5
M.Inf.1185	Sensor Data Fusion		5
M.Inf.1236	High-Performance Data Analytics		6
	Total ECTS		

(I. 1. d.) Methods of Machine Learning (1 module, 6 C)

Module No.	Module Title	Passed in	ECTS
B.Inf.1237	Deep Learning for Computer Vision		6
B.Inf.1241	Computational Optimal Transport		6
M.Inf.2201	Probabilistic Machine Learning		9
B.Inf.1250	Deep Learning for Natural Language Processing		9
M.Inf.2203	Interpretierbarkeit und Bias in Modellen des maschinellen Lernens		6
	Total ECTS		

(I. 2.) Professionalization Section (min. total of 41 C)

(I. 2. a.) **Electives Data Science**

(min. of 1 module from the four module groups

- 2. a. aa.) Computer Science,
- 2. a. bb.) Statistics,
- 2. a. cc.) Mathematics,
- 2. a. dd.) Internships and Seminars;

min of 5 C)

Module No.	Module Title	Passed in	ECTS
		Total ECTS	

(I. 2. b. IV.) **Application Domain "Medical Data Science" (min. total of 18 C)**

(I. 2. b. IV. 1.) Fundamentals of Medical Data Science (min. of 6 C)

Module No.	Module Title	Passed in	ECTS
B.Inf.1351.A	Grundlagen der Biomedizin		6
M.Bio.340	Bioinformatik der Systembiologie (SK-Modul)		3
M.Inf.1308	Journal Club		3
M.Inf.356-1	Personalisierte Medizin		3
M.MED.0004	Klinische Studien		6
		Total ECTS	

(I. 2. b. IV. 2.) Electives in Medical Data Science (min. of 6 C)

Module No.	Module Title	Passed in	ECTS
M.Bio.310	Systembiologie		12
M.Inf.1304	E-Health		6
M.Inf.1307	Current Topics in Medical Informatics		6
M.Inf.1309	Biomedical Signal and Image Processing		6
M.Inf.1351	Arbeitsmethoden in der Gesundheitsforschung		5
M.MED.0003	Ereigniszeitanalyse		6
M.MED.0006	Genetische Epidemiologie		6
		Total ECTS	

(I. 2. c.) Key Competencies (min. total of 12 C)

(I. 2. c. aa.) Job-related Key Competencies (1 module, 12 C)

Module No.	Module Title	Passed in	ECTS
M.Inf.2801	Lab Rotation		12
M.Inf.2802	Industry Internship		12
		Total ECTS	

(I. 2. c. bb.) Interdisciplinary Key Competencies

Module No.	Module Title	Passed in	ECTS
		Total ECTS	

(I. 3.) Further Elective Modules

Further Elective Modules from areas I. 1. and I. 2. until at least 90 C have been accumulated in the core curriculum and the professionalization section.

Module No.	Module Title	Passed in	ECTS
		Total ECTS	

(I. 4.) Master's Thesis (30 C)

Module No.	Module Title	Passed in	ECTS
M.Inf.2901	Master's Thesis		30
		Total ECTS	

Students, who choose a thesis project at the Department of Medical Informatics should take note of the following information provided online:
https://medizininformatik.umg.eu/studium-lehre/praktika-und-abschlussarbeiten/

I choose _____ as my mentor:

Date, Signature Student

Statements

I accept the mentorship. I support the study plan.

Date, Signature Mentor

The study plan is accepted.

Date, Signature Dean for Student Affairs