Addendum to Course Plan:

Alternative Recommendation
for 1st semester students during Winter Semester 2025/26
at the international M.Sc. degree program in Medical Informatics
Profile A: for students with a Bachelor's degree in **Medical Informatics** (or comparable)

See also: Recommended Course Plan

Contact for individual support:
Dr. Markus Zimmermann, Study Program Coordinator: m.zimmermann@uni-tuebingen.de

Course Plan Example
Profile A

Semester			
1	2	3	4
Sequence Bioinformatics (9 ECTS)	Biorobotics (6 ECTS)	Secure Processing of Medical Data: Privacy-enhancing Technologies in Practice (3 ECTS)	Master Thesis (27 ECTS)
		Applicable pre-selection: (6 ECTS) • Advanced SQL • Deep Learning • Network Security I	
Applicable pre-selection: (6 ECTS) • Advanced SQL • Deep Learning • Network Security I	Medical Data Science (6 ECTS)	Research Project in Medical Informatics (or any 9 ECTS course eligible for MEDZ-BIOINFO or MEDZ-BIOMED) (9 ECTS)	
Computational Neuromechanics (6 ECTS)	Advanced Medical Informatics (9 ECTS)	Cheminformatics (6 ECTS)	
Applicable pre-selection: (6 ECTS) • Advances in Computational Transcriptomics • Machine Learning for Single Cell Biology	Efficient Machine Learning in Hardware (6 ECTS)	Nanoanalytics / Interfaces (3 ECTS)	
Bioimaging (3 ECTS)	Machine Learning in Biomedicine (3 ECTS)	Machine Learning for Health (3 ECTS)	Master Thesis Presentation (3 ECTS)
Total: 30 ECTS	Total: 30 ECTS	Total: 30 ECTS	Total: 30 ECTS

Addendum to Course Plan:

Alternative Recommendation
for 1st semester students during Winter Semester 2025/26
at the international M.Sc. degree program in Medical Informatics
Profile B: for students with a Bachelor's degree in **Medical Sciences** (or comparable)

See also: Recommended Course Plan

Contact for individual support:
Dr. Markus Zimmermann, Study Program Coordinator: m.zimmermann@uni-tuebingen.de

Course Plan Example
Profile B

Semester 1	Semester 2	Semester 3	Semester 4
Introduction to Data Structures and Programming for Life Scientists (9 ECTS)	Tabular Database Systems (6 ECTS)	Sequence Bioinformatics (9 ECTS)	Master Thesis (27 ECTS)
Bioimaging (3 ECTS)	Machine Learning of Single-Cell Dynamics (6 ECTS)	Research Project in Medical Informatics (or any 9 ECTS course eligible for MEDZ-BIOINFO or MEDZ-BIOMED) (9 ECTS)	
Applicable pre-selection: (6 ECTS) • Advances in Computational Transcriptomics • Machine Learning for Single Cell Biology	Computational Workflows for Biomedical Data (3 ECTS)		
Applicable pre-selection: (2 x 6 ECTS) • Biomedical Data Literacy • Introduction to Statistical Machine Learning for Bioinformaticians and Medical Informaticians • Angewandte Statistik I • Bildverarbeitung	Advanced Medical Informatics (9 ECTS)	Practical Time Series Analysis in Medicine and Biology with Python (3 ECTS) Machine Learning for Health (3 ECTS)	
	Biorobotics (6 ECTS)	Applicable pre-selection: (6 ECTS) • Advanced SQL • Deep Learning • Network Security I	Master Thesis Presentation (3 ECTS)
Total: 30 ECTS	Total: 30 ECTS	Total: 30 ECTS	Total: 30 ECTS

Addendum to Course Plan:

Alternative Recommendation
for 1st semester students during Winter Semester 2025/26
at the international M.Sc. degree program in Medical Informatics
Profile C: for students with a Bachelor's degree in **Computer Science** (or comparable)

See also: Recommended Course Plan

Contact for individual support:
Dr. Markus Zimmermann, Study Program Coordinator: m.zimmermann@uni-tuebingen.de

Course Plan Example
Profile C

Semester			
1	2	3	4
Nanoanalytics / Interfaces (3 ECTS)	Einführung in die Immunologie (3 ECTS)	Applicable pre-selection: (6 ECTS) • Machine Learning for Single Cell Biology • Advances in Computational Transcriptomics • Cheminformatics	Master Thesis (27 ECTS)
Applicable pre-selection: (6 ECTS) • Humanbiologie I • Medical Visualization	Efficient Machine Learning in Hardware (6 ECTS)	Research Project in Medical Informatics (or any 9 ECTS course eligible for MEDZ-BIOINFO or MEDZ-BIOMED) (9 ECTS)	
Sequence Bioinformatics (9 ECTS)	Biorobotics (6 ECTS)		
	Advanced Medical Informatics (9 ECTS)	Advanced Immunology (3 ECTS)	
Bioimaging (3 ECTS)		Secure Processing of Medical Data: Privacy-enhancing Technologies in Practice (3 ECTS)	
Medizinische Terminologie (3 ECTS)		Machine Learning for Health (3 ECTS)	
Computational Neuromechanics (6 ECTS)	Medical Data Science (6 ECTS)	Applicable pre-selection: (6 ECTS) • Advanced SQL • Deep Learning • Network Security I	Master Thesis Presentation (3 ECTS)
Total: 30 ECTS	Total: 30 ECTS	Total: 30 ECTS	Total: 30 ECTS