

Omics Technologies						
Module Code	Workload 180 hrs.	Credits 6	Semester 2	Frequency of Module Each semester	Duration 1 Semester	
1	Module Components		Teaching Language	Contact Hours	Self Study	Class Size
	a) Practical Course		a) English	a) 22,5 hrs.	a) 67,5 hrs.	a) 15
	b) Data Analysis and Interpretation		b) English	b) 22,5 hrs.	b) 67,5 hrs.	b) 15
2	Learning Outcomes After successful participation in the module the students ... Analysis (4) ... perform an omics analysis in the lab ... analyse omics data with R, Bioconductor and other software tools Evaluation (6) ... biological interpretation of results of omics data analysis					
3	Individual Component Content a) Perform omics experiment in the HFU labs. b) Analyse the omics data generated in the practical course and write an analysis report including the biological interpretation of the results.					
4	Teaching Methods a) Practical / Lab b) Seminar					
5	Prerequisites Keine Eingabe vorhanden					
6	Methods of Assessment a) Non Graded Assessment 1sbL (Laboratory) (3 LP) b) Graded Assessment 1sbA (Practical Work) (3 LP)					
7	Applicability of Module Precision Medicine Diagnostics M.Sc. (PMD)					

8	Person Responsible for Module Prof. Dr. Matthias Kohl (Module Responsible)
9	Reading List (Core Texts and Recommended Texts) a) L. Kaiser, S. Vilgis, I. Quint, M. Kohl (2019). Guide to the Practical course 'Omics Technologies'. b) R. Gentleman, V.J. Carey, W. Huber, R.A. Irizarry, S. Dudoit (Herausgeber) 2005. Bioinformatics and Computational Biology Solutions Using R and Bioconductor. Springer. R. Gentleman (2008). R Programming for Bioinformatics. Chapman & Hall. F. Hahne, W. Huber, R. Gentleman, S. Falcon (2008). Bioconductor Case Studies. Springer.