

Example study paths for track "Computational Life Science"	CMS Track	Contents of COR modules that should be known or selected	Modul CMS-CLS-ELG	Modul CMS-CLS-ELV	Modul CMS-SEM	Modul CMS-CLS-TEA
		Empfehlung	4 SWS im Sommer (2.FS) + 4 SWS im Winter (3. FS)	8 SWS im Winter (3. FS)		
1 Biomedical image analysis	CLS	CMS-COR-MLD CMS-COR-NUM CMS-COR-SAP	Computer Vision 1 Scientific Visualization	Machine Learning 2 User Interface Engineering	Seminar Computational Life Science Seminar Visual Computing	Ideally in cooperation with students from the visual computing track
2 Computer simulation of biological systems	CLS	CMS-COR-HPC CMS-COR-NUM CMS-COR-SSE	Particle methods Wissenschaftliches Arbeiten = Advanced Concepts of object-oriented Computer Languages or Finite Element Methods	Computational Fluid Dynamics Computational Cell Biology or Biological Hydrodynamics	Seminar Computational Life Science Seminar Computational Mathematics	Ideally in cooperation with students from the computational mathematics track
3 Bioinformatics	CLS	CMS-COR-MLD CMS-COR-DBM CMS-COR-SAP	Computergraphik I Genome Engineering Seminar Mathematical Biology	Machine Learning 2 Hochleistungsrechner und ihre Programmierung	Seminar Computational Life Science Seminar Computational Mathematics	Ideally in cooperation with students from the computational mathematics track
4 Computational Psychology	CLS	CMS-COR-HPC CMS-COR-NUM CMS-COR-SSE	Cognitive Neuroscience Methods Scientific Visualization Seminar Mathematical Biology	Cognitive Neuroscience Lifespan Developmental Neuroscience Machine Learning 2	Seminar Computational Life Science Seminar Computational Mathematics	Ideally in cooperation with students from the computational mathematics track
5 Personalized Medicine	CLS	CMS-COR-DBM CMS-COR-SAP CMS-COR-MLD	Scientific Visualization Principles of Biophysics	Machine Learning 2 Computational Cell Biology	Seminar Computational Life Science Seminar Visual Computing	Ideally in cooperation with students from the visual computing track
6 Interactive 3D Systems for Life Sciences	CLS	CMS-COR-VIZ CMS-COR-MLD CMS-COR-SSE	User Interface Engineering Scientific Visualizaton	(Sprache??) Interactive Multimedia Information Retrieval	Seminar Computational Life Science Seminar Visual Computing	Ideally in cooperation with students from the visual computing track
7 Molecular Modeling / Drug Design	CLS	CMS-COR-HPC CMS-COR-NUM CMS-COR-SAP	Principles of Biophysics Particle Methods	Concepts of Molecular Modeling Data Visualization	Seminar Computational Life Science Seminar Computational Engineering	Ideally in cooperation with students from the visual computing track