

Fachspezifische Anforderungen für den Master-Studiengang Microelectronics and Microsystems

Specific Requirements for the International Master Program “Microelectronics and Microsystems”		
Field	Requirements	Required CP
Mathematics	Analysis (e.g. Taylor series, Fourier analysis, Stokes' theorem)	8
	Linear algebra (e.g. Gaussian elimination, eigenvalues, eigenvectors)	8
	Differential and partial differential equations	8
	Complex Functions	6
	Total	30
Computer Science	Procedural Programming	6
	Computer engineering	6
	Object oriented programming, algorithms and data structures	6
	Total	18
Control Theory	Control theory (time and frequency domain, first and second order systems, frequency response, root locus, Nyquist stability, PID controller)	6
	Total	6
Physics	Physics for Engineers	6
	Total	6
Fundamentals of Electrical Engineering	Electrical engineering (e.g. direct & alternating current, electronics)	12
	Materials in electrical engineering	3
	Measurements: Methods and data processing	3
	Circuit theory	6
	Transmission lines	6
	Signals and systems	6
	Theoretical electrical engineering	12
	Semiconductor circuit design and electronic devices	6
	Total	54