Anhang 2 zur Satzung über das Studium an der Technischen Universität Hamburg vom 27. Februar 2013 in der jeweils gültigen Fassung

Das Präsidium der Technischen Universität Hamburg (TUHH) hat am 4. Dezember 2019 die vom Akademischen Senat der TUHH am 27. November 2019 auf Grund von § 39 Absatz 1 Satz 3 Hamburgisches Hochschulgesetz (HmbHG) vom 18. Juli 2001 (HmbGVBl. S. 171) in der Fassung vom 29. Mai 2018 (HmbGVBl. S. 200) beschlossenen Fachspezifischen Anforderungen für den Internationalen Master-Studiengang „Mechanical Engineering and Management“ mit dem Abschluss „Master of Science“ gemäß § 108 Absatz 1 Satz 3 HmbHG genehmigt.

Fachspezifischen Anforderungen für den Internationalen Master-Studiengang „Mechanical Engineering and Management“

Specific Requirements for the International Master Program „Mechanical Engineering and Management“		
Field	**Requirements**	**Required CP**
Mathematics	Foundations of differential and integral calculus of one and several variables: convergence of sequences and series; continuous and differentiable functions; power series and elementary functions; integration theory in one variable (proper + improper integrals, fundamental theorem, integration rules, parameter dependent integrals); integrals over general regions; periodic functions and Fourier series; implicit functions; minimization under equality constraints	12
	Linear Algebra: general vector spaces (subspaces, inner and cross product, Euclidean vector spaces); systems of linear equations (Gauß elimination, inverse matrices, block matrices, determinants); linear mappings (basis transformation, orthogonal matrices); orthogonal projection in R^n, Gram-Schmidt-Orthonormalization; eigenvalues (diagonalizing matrices, normal matrices, symmetric and Hermitian matrices, Jordan normal form); matrix factorizations (LU, QR, Schur, SVD)	8
	Differential equations	4
	Total	**24**

Mechanics	Statics	6
	Strength/mechanics of materials	6
	Kinematics, dynamics, analytical mechanics, multibody systems, oscillations	12
	Total	**24**

Fundamentals of Mechanical Engineering	Thermodynamics (1st and 2nd Law, equations of state, vapors)	6
	Materials science (material properties, material testing)	6
	Manufacturing processes (casting, imaging, coating, moulding, forming, machining, joining)	6
	Measurement technology (metrology, instrumentation)	6
	Control engineering (control theory, control systems)	6
	Computer science (automata theory, data structures, programming languages)	6
	Mechanical engineering design (design process and methods; theory, application and dimensioning of basic and advanced machine elements)	12
	Electrical engineering (direct & alternating current, electronics)	6
	Total	**54**

Foundations of Business Management	Business administration, management, economics	6
	Total	**6**