

**Mechanical Engineering BSc**

	Subject name and Neptun Code	Institute of	pre requirements	1st sem. Fall	2nd sem. Spring	3rd sem. Fall	4th sem. Spring	5th sem. Fall	6th sem. Spring	7th sem. Fall	cr.		
Natural Sciences	Analysis I. (GEMAN114-B2a)	Mathematics		2 + 2							5	exam	
	Linear Algebra (GEMAN203-B2a)	Mathematics		2 + 2							5	exam	
	Engineering Chemistry (MAKEM283-B2a)	Fac. of Materials and Chemical Eng.		2 + 1							3	term mark	
	Analysis II. (GEMAN124-B2a)	Mathematics	GEMAN114-B2a		2 + 2						5	term mark	
	Comprehensive Exam in Mathematics (GEMAN128-B2a)	Mathematics			0						0	exam	
	General Physics I. (GEFIT001-B2a)	Physics and Electronic Engineering			2 + 2						4	exam	
	Engineering Thermodynamics (GEAHT211-B2a)	Energy Engineering and Chemical Machinery	GEMAN114-B2a		2 + 1						3	exam	
	Statics (GEMET001-B2a)	Mechanics	GEMAN114-B2a and GEMAN209-B2a		2 + 2						5	exam	
	General Physics II. (GEFIT002-B2a)	Physics and Electronic Engineering	GEFIT001-B2a			2 + 1					3	exam	
	Engineering Fluid Mechanics (GEAHT321-B2a)	Energy Engineering and Chemical Machinery	GEMAN124-B2a			2 + 1					3	exam	
	Numerical Methods (GEMAK531-B2a)	Mathematics	GEMAN124-B2a and GEMAN209-B2a			2 + 2					5	exam	
	Mechanics of Materials (GEMET002-B2a)	Mechanics	GEMET001-B2a			2 + 2					5	exam	
	Dynamics (GEMET003-B2a)	Mechanics	GEMET002-B2a				2 + 2				5	exam	
Comprehensive Exam in Mechanics (GEMET010-B2a)	Mechanics					0				0	exam		
Economics and Social Sciences	Quality Management	Production Engineering						2 + 0			3	exam	
	Lean Logistics	Logistics							2 + 2		4	term mark	
	Management and Organization	Fac. of Economics							2 + 2		5	exam	
Professional Subjects	Operations Management	Fac. of Economics								2 + 0	2	exam	
	Descriptive Geometry (GEAGT101-B2a)	Mathematics		2 + 2							4	exam	
	Fundamentals of Machine Elements (GEGET001-B2a)	Machine and Product Design		2 + 2							4	exam	
	Computer Studies (GEIAK201-B2a)	Information Science		2 + 2							4	term mark	
	Structural Materials I. (GEMTT001-B2a)	Materials Science and Technology		2 + 2							5	exam	
	Mechanical Drawing (GEGET002-B2a)	Machine and Product Design			2 + 2						4	exam	
	Information Technology for Engineers (GEIAK210-B2a)	Information Science	GEIAK201-B2a			2 + 2					4	exam	
	Structural Materials II. (GEMTT002-B2a)	Materials Science and Technology	GEMTT001-B2a			2 + 2					5	exam	
	Material Technologies (GEMTT003-B2a)	Materials Science and Technology	GEMTT002-B2a				2 + 3				5	exam	
	Machine Elements I. (GEGET003-B2a)	Machine and Product Design	GGLT001-B2a and GGLT002-B2a				2 + 2				4	exam	
	Manufacturing Technology (GEGTT100-B2a)	Production Engineering	GEMTT001-B2a				2 + 2				5	exam	
	Fluid Machinery (GEAHT431-B2a)	Energy Engineering and Chemical Machinery	GEAHT211-B2a and GEAHT321-B2a					2 + 2			5	exam	
	Machine Elements II. (GEGET004-B2a)	Machine and Product Design	GEGET003-B2a					2 + 2			5	exam	
Industrial Machining (GEGTT102-B2a)	Production Engineering	GEGTT100-B2a					2 + 2			4	exam		
Machine Tools (GESGT001-B2a)	Machine Tools and Mechatronics						2 + 2			4	exam		
Chemical Technologies and Equipment (GEVGT001-B2a)	Energy Engineering and Chemical Machinery						2 + 2			4	exam		
Specialisation in Mechanical Engineering	Fundamentals of CAD (GEAGT121-B2a)	Mathematics	GEAGT101-B2a					1 + 2			3	term mark	
	Electrotechnics-Electronics	Physics and Electronic Engineering						2 + 2			4	exam	
	Mechatronics, Hydraulics-Pneumatics	Machine Tools and Mechatronics						2 + 2			3	term mark	
	Automation	Automotive and Communication Technology							2 + 2		4	exam	
	Welding and Related Technologies	Materials Science and Technology						2 + 2			4	exam	
	Quality Inspection in Machining Industry	Production Engineering						2 + 2			4	term mark	
	Technology Planning	Production Engineering						2 + 2			4	exam	
	Measuring of Machines	Logistics						2 + 2			5	exam	
	Heat Treatment and Surface Technologies	Materials Science and Technology						2 + 2			5	exam	
	Noise Protection	Machine and Product Design						2 + 2			5	exam	
	Design Knowledge	Machine and Product Design						0 + 2			2	term mark	
	Hydraulic and Pneumatic Systems	Machine Tools and Mechatronics								2 + 2	3	term mark	
	Finite Element Applications of Machine Structures	Machine and Product Design								2 + 2	4	exam	
Safety Engineering in Chemical Industries	Energy Engineering and Chemical Machinery								2 + 2	4	term mark		
Specialisation in Machine Manufacturing Technology	Cutting Theory	Production Engineering						2 + 2			4	exam	
	Quality Inspection in Machining Industry	Production Engineering						2 + 2			4	term mark	
	Technology Planning	Production Engineering						2 + 2			4	exam	
	CAD Systems	Machine Tools and Mechatronics						2 + 2			5	term mark	
	CNC Technology	Production Engineering						2 + 2			5	term mark	
	Machine Industrial Assembly	Production Engineering						2 + 2			5	exam	
	Production Technology of Typical Parts	Production Engineering						0 + 2			2	term mark	
	Material Technologies in Manufacturing Processes	Materials Science and Technology								2 + 2	3	exam	
	Production Processes and Systems	Production Engineering								2 + 2	4	exam	
	Design of Tools and Fixtures	Production Engineering								2 + 2	4	term mark	
	Methods of Mechanical Engineering Design	Machine and Product Design						2 + 2			4	exam	
	Nonmetallic Materials and Technologies	Materials Science and Technology						2 + 2			4	exam	
	Computer Aided Design	Machine and Product Design						2 + 2			4	term mark	
CNC Machine Tools	Machine Tools and Mechatronics							2 + 2		5	exam		
Prototyping and Machine Building Techniques	Machine and Product Design							0 + 4		5	exam		
Noise Protection	Machine and Product Design							2 + 2		5	exam		
Design Knowledge	Machine and Product Design							0 + 2		2	term mark		
Bearings	Machine and Product Design								2 + 2	3	exam		
Finite Element Applications of Machine Structures	Machine and Product Design								2 + 2	4	exam		
Fundamentals of Tribology	Machine and Product Design								2 + 2	4	exam		
Specialisation in Design of Machine Tools	Design of Machine Tools	Machine Tools and Mechatronics						2 + 2			4	exam	
	Tribology	Machine and Product Design						2 + 2			4	exam	
	Theory of Design	Machine Tools and Mechatronics						2 + 2			4	exam	
	Single Purpose Machines and its Designing	Machine Tools and Mechatronics							2 + 2		5	term mark	
	Programming of CNC Machine Tools	Machine Tools and Mechatronics							2 + 2		5	exam	
	Measuring of Machines	Machine Tools and Mechatronics						2 + 2			5	exam	
	Design Projects	Machine Tools and Mechatronics						0 + 2			2	term mark	
	Metal-Forming Machine Tools	Machine Tools and Mechatronics								2 + 2	3	term mark	
	Hydraulic and Pneumatic Systems	Machine Tools and Mechatronics							2 + 2		4	term mark	
	Special and Precision Manufacturing Technologies	Production Engineering								2 + 2	4	term mark	
	Specialisation in Chemical Machinery Engineering	Pressurized Systems A	Energy Engineering and Chemical Machinery						2 + 2			4	exam
		Unit Operation A	Energy Engineering and Chemical Machinery						2 + 2			4	exam
		Basics of Physical Chemistry for Mechanical Engineers	Fac. of Materials and Chemical Eng.						2 + 2			4	term mark
Materials and Welding of Chemical Equipment		Materials Science and Technology							2 + 2		5	exam	
Rotating Machinery Diagnostics and Maintenance		Energy Engineering and Chemical Machinery						0 + 2			2	term mark	
Pressurized Systems B		Energy Engineering and Chemical Machinery						2 + 2			5	exam	
Unit Operation B		Energy Engineering and Chemical Machinery							2 + 2		5	exam	
Process Control in Chemical Engineering		Automation and Communication Technology								2 + 2	4	term mark	
Safety in Chemical Engineering		Energy Engineering and Chemical Machinery								2 + 2	4	exam	
Process Engineering in Chemical Industry		Energy Engineering and Chemical Machinery								2 + 2	3	exam	
Physical Education 1. (ETTESME1A)		Fac. of Health Sci.		0 + 2							0	signature	
Physical Education 2. (ETTESME2A)		Fac. of Health Sci.			0 + 2						0	signature	
Summer Internship*											0	signature	
Degree Thesis									0 + 8	15	term mark		
optional 1	Optional						2 + 2			5	term mark		
optional 2	Optional						2 + 0			3	exam		
optional 3	Optional								2 + 0	2	exam		
cr/sem.				30	30	30	30	30	30	2 + 0	2	exam	
											30	210	

\*Obligatory: minimum of 6 weeks, preferably after the 6th semester  
 Comprehensive Exam in Mathematics GEMAN128-B2a: obligatory exam in the 2nd semester. Prerequisites: completion of GEMAN114-B2a and GEMAN203-B2a and registered or fulfilled GEMAN124-B2a  
 Comprehensive Exam in Mechanics GEMET010-B2a: obligatory exam in the 4th semester. Prerequisites: completion of GEVET002-B2a and registered or fulfilled GEMET003-B2a