

**Mechanical Engineering BSc**

	Subject name and Neptun Code	Institute of	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 (MAKKEM283-B2a)	Fac. of Materials and Chemical Eng.	2 + 1							3	term mark	
	Analysis II. (GEMAN124-B2a)	Mathematics		2 + 2						5	term mark	
	<b>Comprehensive Exam in Mathematics (GEMAN128-B2a)</b>	<b>Mathematics</b>		<b>0</b>							<b>0</b>	
	General Physics I. (GEFIT001-B2a)	Physics and Electronic Engineering		2 + 2						4	exam	
	Engineering Thermodynamics (GEAHT211-B2a)	Energy Engineering and Chemical Machinery		2 + 1						3	exam	
	Statics (GEMET001-B2a)	Mechanics		2 + 2						5	exam	
	General Physics II. (GEFIT002-B2a)	Physics and Electronic Engineering			2 + 1					3	exam	
	Engineering Fluid Mechanics (GEAHT321-B2a)	Energy Engineering and Chemical Machinery			2 + 1					3	exam	
	Numerical Methods (GEMAK631-B2a)	Mathematics			2 + 2					5	exam	
	Mechanics of Materials (GEMET002-B2a)	Mechanics			2 + 2					5	exam	
<b>Comprehensive Exam in Mechanics (GEMET010-B2a)</b>	<b>Mechanics</b>					<b>0</b>				<b>0</b>		
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	
	Operations Management	Fac. of Economics							2 + 0	2	exam	
Professional Subjects	Descriptive Geometry (GEGAT101-B2a)	Mathematics	2 + 2							4	exam	
	Fundamentals of Machine Elements (GEGE001-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 (GEGE002-B2a)	Machine and Product Design		2 + 2						4	exam	
	Information Technology for Engineers (GEIAK210-B2a)	Information Science		2 + 2						4	exam	
	Structural Materials II. (GEMTT002-B2a)	Materials Science and Technology		2 + 2						5	exam	
	Material Technologies (GEMTT003-B2a)	Materials Science and Technology			2 + 3					5	exam	
	Machine Elements I. (GEGE003-B2a)	Machine and Product Design			2 + 2					4	exam	
	Manufacturing Technology (GEGTT100-B2a)	Production Engineering			2 + 2					5	exam	
	Fluid Machinery (GEAHT431-B2a)	Energy Engineering and Chemical Machinery				2 + 2				5	exam	
	Machine Elements II. (GEGE004-B2a)	Machine and Product Design				2 + 2				5	exam	
	Industrial Machining (GEGTT102-B2a)	Production Engineering				2 + 2				4	exam	
	Machine Tools (GEGT001-B2a)	Machine Tools and Mechatronics				2 + 2				4	exam	
	Chemical Technologies and Equipment (GEVGT001-B2a)	Energy Engineering and Chemical Machinery				2 + 2				4	exam	
	Fundamentals of CAD (GAGT121-B2a)	Mathematics				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	Automation and Communication Technology						2 + 2		4	exam	
	Specialisation in Mechanical Engineering	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	
Specialisation in Machine Design	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. (ETTESM1A)	Fac. of Health Sci.		0 + 2							0	signature	
Physical Education 2. (ETTESM2A)	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	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 GEMET002-B2a and registered or fulfilled GEMET003-B2a