

Mechanical Engineering BSc

	Subject name and Neptun Code	Institute of	Prerequisite	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			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			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
	Dynamics (GEMET003-B2a)	Mechanics					2 + 2				5	term mark
	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
	Operations Management	Fac. of Economics								2 + 0	2	exam
Professional Subjects	Descriptive Geometry (GEAGT101-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 (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
	Fundamentals of CAD (GEAGT121-B2a)	Mathematics					1 + 2				3	term mark
	Electrotechnics-Electronics	Physics and Electronic Engineering						2 + 2			4	exam
	Mechatronics, Hydraulics-Pneumatics	Machine Tools and Mechatronics Automation and Communication						2 + 2			3	term mark
	Automation	Technology							2 + 2		4	exam
	Specialisation in Mechanical Engineering	Welding and Related Technologies	Materials Science and Technology						2 + 2			4
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
	Unitr 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	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