N2301 Mechanical Engineering — Year I.

Field: MACHINES AND EQUIPMENT DESIGN

Study direction: Textile and Single-purpose Machines
Glass Machines and Robotics
Production Machines
Vehicles
Energetics Equipment
Instrumentation

Subject [abbreviation]	Guarantee (department)	Semester		Number of credits
		winter 14 weeks	summer 14 weeks	
P/ Obligatory subjects				
Fatigue Mechanics of Materials [DUZ]	KMP	2+2 ex		5
Heat and Mass Transfer [PTH]	KEZ	2+2 ex		5
Mechanism Design [SM-N]	KTS	2+2 ex		5
Finite Element Analysis in Engineering Practice [MKP1K]	KTS,KEZ	2+2 cc		4
Advanced CAD TechnologyCAD [PTCAD]	KST	0+2 c		2
Vibration of Mechanical Systems [KMS]	KMP,KST		2+2 ex	5
Design Methodology [MKO]	KTS		2+2 ex	4
Electric Drives and Servomechanisms [EPS]	KVS, MTI		3+2 ex	5
Project I [PR1]	Dept.		0+4 cc	4
Specialized Practice [1) 3)]	Dept.		2 weeks	2
PV/ Obligatory eligible subjects				
Subject of field/study direction I [2) 3)]	Dept.	2+2 ex		4
Subject of field/study direction II [2) 3)]	Dept.	2+2 ex		4
Subject of field/study direction III [2) 3)]	Dept.		4+2 ex	6
Subject of field/study direction IV [2) 3)]	Dept.		3+2 ex	5
P,PV (summary of hours and credits)		**12+14**	**14+14**	**60**
P,PV (summary of ex and cc)		5 ex, 1 cc	5 ex, 1 cc	

Notes

1) Students complete on the practice in accordance with a schedule determined by a department.
2) Students can choose from subjects of field and study direction (the list of subjects and their extent is in the Table I).
3) Departments guarantee study directions (KEZ, KSR, KTS, KVM, KVS).
4) Upon evaluation of the study plan and the results of bachelor´s study and the results of the entry exam the dean can further ask for extending an individual study plan with selected subjects of theoretical and technical base.

Abbreviation:

2+2	number of lectures and exercises weekly
zk	examination
kl	classified credit
z	credit

N2301 Mechanical Engineering — Year II.

Field: MACHINES AND EQUIPMENT DESIGN

Study direction: Textile and Single-purpose Machines
Glass Machines and Robotics
Production Machines
Vehicles
Energetics Equipment
Instrumentation

Subject [abbreviation]	Guarantee (department)	Semester		Number of credits
		winter 14 weeks	summer 10 weeks	
P/ Obligatory subjects				
Experimental Methods [EXM1]	Dept.	2+2 cc		5
Materials for Structural Aplication [MKA]	KMT	2+0 ex		3
Technical Diagnostics [TD]	KVM		2+2 ex	4
Project II [PR2]	Dept.	0+4 cc		4
Diploma Thesis I [DPR1]	Dept.	0+2 c		2
Diploma Thesis II [DPR2]	Dept.		0+10 c	8
Diploma Thesis III [DPR3]	Dept.		4 weeks	15
PV/ Obligatory eligible subjects				
Subject of field/study direction V [2) 3)]	Dept.	2+2 ex		4
Subject of field/study direction VI [2) 3)]	Dept.	2+2 ex		4
Subject of field/study direction VII [2) 3)]	Dept.	2+2 ex		4
Subject of field/study direction VIII [2) 3)]	Dept.		2+2 ex	4
F – Facultative subjects [5)]	Dept.		2+0 ex	3
P,PV (summary of hours and credits)		**10+14**	**6+14**	**60**
P,PV (summary of ex and cc)		4 ex, 2 cc	3 ex	

Notes

5) Students choose from the group of facultative subjects.

			Field: MACHINES AND EQUIPMENT DESIGN		
Subject	**Extent**	**Semester**	**Textile and Single-purpose Machines**	**Glass Machines and Robotics**	**Production Machines**
PO I	2+2 ex	1. (WS)	Robotics [ROB]	Robotics [ROB]	Robotics [ROB]
PO II	2+2 ex	1. (WS)	Textile Machines I [TS1]	Technology of Automatic Glass Production [TVS]	Production Machines I [VS1]
PO III	4+2 ex	2. (SS)	Textilne Machines II [TS2]	Glass Machines [SKLS]	Development and Reverse Engineering [VRI]
PO IV	3+2 ex	2. (SS)	Machines Design [SS]	Design of Industrial and Service Robots [KR]	Production Machines II [VS2]
PO V	2+2 ex	3. (WS)	Modeling of Mechanical Systems [MMS]	Effectors of Industrial and Service Robots [EFR]	Production Machines III [VS3]
PO VI	2+2 ex	3. (WS)	Selected Chapters from Design of Textile and Single-purpose Machines [VSTS]	Scanning and Processing of Industrial Data [SPD]	Dynamic of Hydraulic Systems [DHS1]
PO VII	2+2 ex	3. (WS)	Synthesis of Pneumatic Circuits [SPO1]	Synthesis of Pneumatic Circuits [SPO1]	Synthesis of Pneumatic Circuits [SPO1]
PO VIII	2+2 ex	4. (LSS)	Transport and Handling Systems [DMS]	Transport and Handling Systems [DMS]	Transport and Handling Systems [DMS]
Subject	**Extent**	**Semester**	**Vehicles**	**Energetics Equipment**	**Instrumentation**
PO I	2+2 ex	1. (WS)	Theory of Vehicles [TVO]	Alternative Energy Sources [OZE]	Robotics [ROB]
PO II	2+2 ex	1. (WS)	Driving Units I [POJ1]	Numericas Simulation of Energetics Systems [MES]	Technical Optics [TOP]
POIII	4+2 ex	2. (SS)	Vehicles I [VOZ1]	Power Machines [ES]	Electric Transducers of Physical Quanti-ties [EPFV]
PO IV	3+2 ex	2. (SS)	Driving Units II [POJ2]	Applied Fluid Mechanics [AMT]	Design Equipment [KPR]
PO V	2+2 ex	3. (WS)	Vehicles II [VOZ2]	Technical Building Equipment [TZB]	Modelling of Mechanical Systems [MMS]
PO VI	2+2 ex	3. (WS)	Driving Units III [POJ3]	Energy Saving Buildings and Equipment [EUSZ]	Physical Principles of Nanofibre Pro-duction [FPTN]
PO VII	2+2 ex	3. (WS)	Modelling and Simulation II [MS2]	Selected Parts of Energetics Equipment [VSEZ]	Synthesis of Pneumatic Circuits [SPO1]
PO VIII	2+2 ex	4. (SS)	Vehicles III [VOZ3]	Environmental Protection Technics [TOŽP1]	Laser Technique and Fibre Optics [LTE*Z]