			Name of course Lifting and conveying machines							
Lecturer			Prof. Petryna D.							
Assistant Lecturer			Prof. Petryna D.							
Training direction (Oil a	nd Gas Eng	ineering	Code		6.050304			
Institute										
Department										
Form of study					Year		I s	emester	6	
Types of academic hours		Total	Lectures	Practica training	Practical Laborat trainings work		ndependent Findividual work	Course project	ECTS	
		68	32	32						
Course goal and objectives										
Form of control										
Requirements for admission to the final control and the method of final evaluation		s for final od of ation								

General information and classification of lifting machines. Designation and classification of lifting machines used in the construction and operation of gas pipelines and drilling of oil and gas wells. Basic mechanisms and parameters of these machines. Operating modes of mechanisms.

Parts and units of lifting machines. Hoists. General information. Hoists main parameters. Steel wire ropes. Method of choosing of steel wire ropes.

Parts and units of lifting machines. General information about hoisting drums. Design calculations of drums, determination of basic geometrical dimensions and wall thickness. Stability of the wall and equivalent stresses checking calculation of the hoisting drums.

Weight holding devices. General information and classification. The weight hooks and clamps. Methodology of selecting the hook. Crane winches and its general construction. Design and checking calculations of winches.

Breaking mechanisms. General information and classification. Shoe breaks. Break construction and calculation. Band breaks. Band break construction and calculation.

Calculation of lifting mechanisms and mechanisms of operating radius boom. Choice of motor and reducer for crane operation. Calculation of drive of hoisting mechanisms. Choice of break and coupling for crane service. *Classification and main theoretical calculation.* Classification and main purposes of conveying machines. Weight characteristics. Conveyor efficiency.

Belt conveying machines. Construction and main information. Conveyor belts and roller supports. Conveyer transmission. Power calculation and motor choosing.

Chain and scrapper conveyor. Construction and main information. Design and checking calculation.

The program of studies (practical, laboratory, course projects)	
Crane classification and operating modes of its mechanisms	
Hoist calculation of lifting mechanism	
Design calculation of the rope drum	
Design calculation of the crane winch	
Motor, reducer and coupling choosing for lifting mechanism	
Belt conveyor design calculation	
Belt conveyor power calculation	
Concluding session	