SYLLABUS OF THE DISCIPLINE
«Technology of machine building»

Education and qualification level - Bachelor
Specialty 13 - «Mechanical engineering»
Year of study (course) – 2, 3, semester – 4,5,6
Form of education – on-site mode of study
Number of credits ECTS - 7
Language of study – English, Ukrainian

Lecturer of discipline	**Gnyloskurenko S., Pohylenko G.**
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Web-page of discipline eLearn	**Part 1. http://elearn.nubip.edu.ua/course/view.php?id=1168** **Part 2. http://elearn.nubip.edu.ua/course/view.php?id=2257**

DESCRIPTION OF THE DISCIPLINE

The discipline "Technology of machine building" contains basic information about the fundamental of technology of machine building (mechanical engineering), types of technological processes, basics of manufacturability of parts design, methods of achievement of processing accuracy and quality of surfaces, basics of technical rationing and typical technological processes of assembly of machines and the manufacture of parts of different types.

The purpose of the discipline is to provide the necessary knowledge to the future design engineer for the successful selection of technological methods for obtaining and processing workpieces for ensuring high product quality, saving materials, high productivity.

The objectives of the discipline are to study technological methods of production and processing workpieces, their characteristics, basing of workpieces, problems of parts manufacturability (taking into account obtaining methods), technological methods to improve mechanical treatment accuracy and quality of the treated surface.

STRUCTURE OF DISCIPLINE COURSE

Theme	**Hours** (lectures/ Lab. works/ Self study)	**Results of study**	**Task**	**Estimation, points**
4 Semester				
The thematic module 1. Basics, fundamentals of machine building.				**35**
Theme 1. Basics, fundamentals of machine building	2/0/4	Students should: *know*: production and technological processes, warehousing, development and analysis of technological processes, fundamental factors, methods for ensuring accurate machining, statistical methods for further investigation during	Delivery of laboratory works. Execution of independent works. Performing laboratory and independent work in "Elearn"	
Theme 2. Fabricability (processability index, manufacturability, of products design	2/0/4			
Theme 3. Fundamentals of locating parts, workpieces, products	2/2/6			**10**

Theme 4. Accuracy of mechanical processing and methods of its providing	5/9/8	mechanical mining. *be able to*: determine the technology bases, analyze the part for the technology, determine a products waste, refused materials, defects.		**20**
Theme 5. Quality of surfaces of machine parts and methods of its providing	2/2/4			**5**
The thematic module 2. Fundamentals of technical valuation				**35**
Theme 1. Fundamentals of technical valuation	2/2/4	Students should: *know*: the basic methods and ways to distribute technical time norms of the technological process. *be able to*: set up, determine the norms.	Delivery of laboratory works. Execution of independent works. Performing laboratory and independent work in "Elearn"	**35**
Total for the 4th semester	**15/15/30**	**-**	**-**	**70**
Tests				**30**
Total for the 4th semester				**100**
5 semester				
The thematic module 3. Devices for metalworking machine tools				**35**
Theme 1. Devices for metalworking machine tools	10/10/10	Students should *know*: the layout for the technological process of mechanical processing details. Mechanisms of the milestone near-shore. Optimization mode. Technical and economic indicators of the technological process. *be able to:* select equipment and accessories for technological process.	Delivery of laboratory works. Execution of independent works. Performing laboratory and independent work in "Elearn"	**35**
The thematic module 4. Design of technological processes of mechanical processing.				**35**
Theme 1. Design of technological processes of mechanical processing.	8/8/8	Students should *know*: the technological documentation, the latest development of the technological process. The last machining on top of the part and the number of	Delivery of laboratory works. Execution of independent works. Performing laboratory and	**5**
Theme 2. Machining, processing parts of	4/4/4			**10**

"SHAFTS" class, type		technological operations. *be able to:* design the technological processes of machining the details of the different classes.	independent work in "Elearn"	
Theme 3. Machining, processing parts of "Sleeves" class, type	2/2/2			**5**
Theme 4. Machining, processing parts of "Levers" class, type	4/4/4			**10**
Theme 5. Machining, processing parts of "Discs" class, type	2/2/2			**5**
Total for the 5th semester	**30/30/30**	**-**	**-**	**70**
Examination				**30**
Total for the 5th semester				**100**
6 semester				
The thematic module 5. Typical technological processes of manufacturing parts				**35**
Theme 1. Machining, processing parts of " Gears " class, type	4/4/4	Students should *know*: the technological processes of operating the working bodies of the machines, the type the technological processes of processing the details of the high class. *be able to:* design the technological processes of processing the details of the high class parts with the highest quality technology and the latest construction materials	Delivery of laboratory works. Execution of independent works. Performing laboratory and independent work in "Elearn"	**10**
Theme 2. Machining, processing parts of "Body parts" class, type	4/5/4			**15**
Theme 3. Manufacturing of working parts of agricultural machines	2/2/4			**10**
Theme 4. Manufacturing of nonmetallic parts	1/0/4			
The thematic module 6. Fundamentals of technology of assembly processes				**35**
Theme 1. Fundamentals of technology of assembly processes	2/2/6	Students should *know:* basic understanding and designation of the technology of warehouse processes, the classification of warehouse operations, and the technology of folding. *be able to:*	Delivery of laboratory works. Execution of independent works. Performing laboratory and independent work in	**15**
Theme 2. Automatization of assembly works	1/2/4			**10**
Theme 3. Painting, drying, coating of parts	1/0/4			**10**

		classify assembling operations, technological processes of folding	"Elearn"	
Total for the 6th semester	**15/15/30**	**-**	**-**	**70**
Tests				**30**
Total for the 6th semester				**100**

GRADING POLICY

Policy on the deadlines and resubmission of works	A student must submit the work within the time specified by the teacher. Works that are submitted in violation of deadlines without proper reason are evaluated at a lower grade. Resubmission of modules takes place with the permission of the lecturer in case of proper reasons (for example, illness).
Policy on academic ethics	Write-offs during tests and exams are prohibited (including the use of mobile devices). Course papers (projects), reports must have correct literature references.
Policy on attendance	A student is obliged to attend classes of all kinds every day in accordance with the established schedule, not to be late, to have the appropriate appearance. For objective reasons (for example, illness, international internship) study could be realized individually (in online form in case of approval by the Dean of the Faculty).

STUDENTS GRADING SCALE

Rating of student, points	**Marks accordingly National system for passing examinations, tests**	
	Examinations	**Tests**
90-100	excellent	accepted
74-89	good	
60-73	satisfactory (passed)	
0-59	not satisfactory (not passed)	not accepted