

**MINISTRY OF EDUCATION AND SCIENCE OF UKRAINE  
CHERNIGIV NATIONAL UNIVERSITY OF TECHNOLOGY**

**EDUCATIONAL SCIENTIFIC PROGRAM**

SCOPE	13 - MECHANICAL ENGINEERING
SPECIALTIES	133 - MACHINE BUILDING
LEVEL OF EDUCATION	THIRD (EDUCATIONAL SCIENCE)

<b>Profile of the program</b>	
<b>Doctor of Philosophy in the field of Applied Mechanics</b>	
<b>Diploma type and scope of work</b>	Diploma of Doctor of Philosophy, first degree, 4 academic years, 60 credits of ECTS
<b>Institution of higher education</b>	Chernihiv National University of Technology, Chernihiv
<b>Accrediting institution</b>	Ministry of Education and Science of Ukraine, Ukraine Peremohy av., 10, Kyiv, 01135
<b>Period of accreditation</b>	2016 year
<b>Program level</b>	QF for EHEA - third cycle, EQF for LLL - 8 level; NQF of Ukraine - level 8
<b>A</b>	<b>The purpose of the program</b>
	To provide, on the basis of the master's degree, the training of scientific and scientific-pedagogical staff in the field of machine-building industry by obtaining the competencies that are sufficient for the implementation of original scientific research, the results of which have scientific novelty, theoretical and practical importance, as well as their support in the preparation and protection dissertation.
<b>B</b>	<b>Characteristics of the program</b>
<b>1</b>	<b>Subject area (branch of knowledge)</b> Sectoral engineering (13- Mechanical Engineering)
<b>2</b>	<b>Focus Programs: general/special</b> <b>The third (educational and scientific) level of higher education according to the Law of Ukraine "On Higher Education", the eighth qualification level of the National Qualifications Framework.</b> <b>General.</b> Investigation of the laws concerning: - tendencies of the development of automated production, modern systems of control of technological processes and machines; - development of material and technical base of mechanical engineering; - the use of appropriate and well-grounded technologies and methods of machining, machine tools and tools; - efficient management of the work of CNC machine tools; - the diversity of mechanical objects, understanding the significance of mechanics for the development of society; - use of modern information technologies; - effective use of modern statistical methods of research. <b>Special.</b> - improvement of means, technologies and processes of mechanical processing, machine tools and tools; - research and development of a complex of technical means for the development and effective use of processes of machining, machine tools and tools; - research of patterns of demand formation on the development of own technologies of production and processing of parts; - research of regularities of effective functioning of modern production systems;

		<ul style="list-style-type: none"> <li>- development of models of processes of mechanical processing;</li> <li>- identification and justification of the factors of the effectiveness of grinding treatment, the development of methods for organizing production;</li> <li>- solving complex problems of mechanical processing;</li> <li>- development of theoretical and research bases of effective functioning of processes of mechanical processing and production systems in the field of mechanical engineering;</li> <li>- patterns of formation of the technological process of detail processing and achievement of the necessary accuracy of processing;</li> <li>- development of new and / or improved existing methods for achieving the accuracy of processing;</li> <li>- development of tools and mathematical methods, used in modeling processing processes;</li> <li>- modeling of processes of mechanical processing of parts using packages of applications;</li> <li>- problems of interaction between different types of machining, machine tools and tools;</li> <li>- development of methods and technologies and substantiation of means for achievement of necessary accuracy of processing of various surfaces of parts;</li> <li>- development of methods of mechanical processing with application of adaptive mode of management;</li> <li>- problems of machine building safety. Patterns of safety engineering;</li> <li>- the basics of safety management in the processes of mechanical processing.</li> </ul>
3	<b>Program orientation</b>	<b>Research and applied.</b> Research program of improvement of processes of mechanical processing, machine tools and tools, construction of a mathematical model for determining the accuracy of detail processing.