

131 Applied Mechanics Bachelor's Degree.

1. **Code and title of specialty (direction)** 131 "Applied mechanics"
2. **Title of specialization** Mechanical engineering
3. **Code and title of the field of knowledge** Mechanical Engineering
4. **Qualification** the Bachelor of Applied Mechanics in Mechanical Engineering
5. **Number of credits** 240
6. **Grade of higher education** first (bachelor) corresponds to the sixth qualifying level of Ukraine National Qualifications Framework
7. **Requirements to the previous education grade** a person has the right to acquire the Bachelor's degree under the condition of the completed secondary education or the junior specialist in the appropriate specialty education. If the previous educational grade is obtained in another country, the nostrification is required.
8. **Qualification** the document on higher education is issued to a person who has successfully completed an educational program and has been certified. Final certification is carried out as the evaluation of the degree of competences development. The form of attestation is the defense of final Bachelor's paper.
9. **Program study results** the student must know the following:
 - to have notion and understanding in shaping a stable outlook, correct perception of contemporary developmental problems of society, human being, spiritual culture;
 - knowledge and understanding of the need for the formation of political consciousness, political culture and pluralism;
 - the understanding of active vital and civic stance;
 - the understanding of social responsibility for the activities of the organization;
 - knowledge and understanding of methods of effective communication interaction;
 - the understanding of the need for the acquisition of new knowledge, self-improvement;
 - knowledge of norms of a healthy way of life;
 - knowledge and understanding of methods of applying the bases of analysis of systems, methods and methods of its implementation;
 - knowledge about providing safe working and living conditions;
 - knowledge of ensuring measures to protect the population from the consequences of accidents, disasters, natural disasters and the use of weapons of mass destruction;
 - knowledge of the foundations of philosophy, logic, psychology, culturology, ethics and aesthetics, pedagogy, sociology, ecology and life safety, contributing to the development of the general culture and socialization of the individual, direct it to ethical values;
 - knowledge of national history, economics and law, understanding of the causal consequences of the development of society and the ability to use them in professional and social activities;

- knowledge of the fundamental sections of mathematics, to the extent necessary for the possession of the mathematical apparatus of system sciences, the ability to use mathematical methods in engineering technology;
- basic knowledge of system sciences necessary for the mastering of general-Professional disciplines;
- basic knowledge in the field of computer science and modern information technologies;
- knowledge and understanding of the rules of written and oral mother tongue;
- knowledge and understanding of the rules of written and spoken foreign language;
- knowledge of laws, methods and rules of information management and work with documents;
- knowledge of methods and rules of economic calculations;
- knowledge of methods and rules for working with the computer and working on the Internet;
- knowledge of laws, methods and methods of conducting scientific and applied researches;
- knowledge of the methodology of systematic research, methods and analysis of complex natural, man-made, economic and social objects and processes, understanding the complexity of objects and processes of different origin, their diversity, multifunctionality, interaction and living conditions for the solution of applied and scientific tasks in the field of system sciences;
- knowledge of mathematical methods of constructing and analyzing models of natural, technological, economic and social objects and processes of informatization, development of mathematically grounded algorithms of systems functioning;
- knowledge and understanding of the general principles of operation and architecture of computer systems, possession of system and application software;
- knowledge of the current state requirements and international standards, methods and means of designing machines and technologies;
- knowledge and understanding of the basics of programming to solve specific tasks;
- knowledge of progressive structures, technology of production, methods of manufacturing products, cutting and measuring instruments, etc .;
- knowledge of basic methods and approaches for the organization, planning, management and control of design, development, after project support and operation of general purpose vehicles;
- knowledge and understanding of the methods of system analysis for the construction of models of objects and processes of different origin;
- knowledge of modern methods of development and optimization of procurement, adaptations and typical technological processes;
- knowledge of detection methods, formulation, specification, analysis of standard machines and machines;
- knowledge of k representation models, methods of extraction and structuring knowledge, logical output for the development of general-purpose machines and machine tools;
- knowledge of methods, standards, state standards and current legislation regarding the organization, planning, control and management of work on the design and development of machines and processes;
- knowledge of typical technologies of manufacturing typical machine parts;

- knowledge of methods, methods of control and testing of technological processes during the preparation of the release new products;

- knowledge of methods and rules of operation and service of machines, tools and devices for typical technologies.

10. Employment competences the Bachelor of specialty 131 "Applied Mechanics" can hold positions in companies, small enterprises and institutes. These are the following: a designer, a technologist, a production manager, a marketer for professional support of implementation, automated and robotic technological equipment for production. Also the bachelor can obtain the positions in design, research institutes and institutions in various fields: machine building,

automotive, transport, light, processing, chemical, electronic and other industries

11. Further study perspective Bachelor's degree 131 "Applied Mechanics" can continue studying at the educational qualification level of the Master according to the system Cross-border admission to specialties of any branch, if not forbidden by legislation, under the condition of the relevant entrance examinations successful completion.

12. Department the Department of Machine science and equipment of industrial enterprises

13. Institute/faculty Engineering

14. Educational program supervisor Professor, Doctor of Technical Sciences O.G Arkhipov.,

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