

Degree Programme: MECHANICAL ENGINEERING EQUIPMENT AND TECHNOLOGIES
ECTS code: MTT

Qualification awarded: MEng

Education forms: Full-time

Term of education:

1 year

Final examination: development and public defense of a diploma project

Admission requirements: Ranking by success from the diploma completed Bachelor's degree and from grade-forming disciplines.

Access to further studies: Graduates of the MEET master's program have the opportunity to apply for various specializations and "doctoral" programs.

Programme importance: The education is tailored to modern trends in mechanical engineering, technologies for design and manufacturing of mechanical engineering products, CAD/CAM/CAE technologies, engineering information management, as well as the educational and research programs of leading universities and the needs of manufacturing enterprises.

General characteristics of the education:

During the education, students in the specialty MEET master's degree build on the fundamental knowledge and skills of the main disciplines in the bachelor's degree. Knowledge and skills are obtained in a number of specialized engineering disciplines, closely related to the specialty at a higher level.

Education is carried out related to the acquisition of specialized knowledge and skills in the field of materials, mechanical engineering technologies and the integration of modern software and hardware technologies into engineering processes. This complex of knowledge is a significant prerequisite for successful professional activity.

Education in this specialty will provide solid preparation for students in the following areas:

- Knowledge and skills for working with CAD/CAM/CAE systems for analysis and research of details and assemblies of structures;
- Mastering modern technologies for mechanical processing of details and methods for creating forming tools;
- Knowledge in the field of automatic control of technological processes for mechanical processing, adaptive and active control;
- Knowledge in the field of industrial automation;
- Skills for designing mechanical engineering products using computer technologies and virtual engineering;
- Knowledge in the field of modern materials and their application;
- Knowledge and skills in casting and plastic deformation technologies;
- Knowledge and skills in the field of welding and welded structures.

It is possible, through elective disciplines, to obtain a specialization in "Manufacturing technologies and metal-cutting machines" and "Materials science and technology of mechanical engineering materials".

Education is provided related to the design of technological processes for CNC metal cutting machines, design of metal-cutting machines and tools, as well as technological equipment for mechanical engineering equipment. Students receive in-depth knowledge in the operation and repair of production equipment and automation and engineering design of mechanical engineering production. Education and professional training in the fields of materials science, metal casting, welding and plastic processing of materials has been strengthened.

Educational and professional goals:

The purpose of the education in the specialty Mechanical Engineering Equipment and Technologies, Master's Degree is to provide solid and in-depth preparation, as an upgrade to the disciplines studied in the Bachelor's Degree, to improve the professional knowledge, skills and habits of those wishing to receive a quality higher education in the field of mechanical engineering. To acquire knowledge and skills for all main sectors of the mechanical engineering industry - the design of technological processes for CNC metal cutting machines, design of metal-cutting machines and tools, as well as technological equipment for mechanical engineering, the operation and repair of production equipment, automation and engineering design in mechanical engineering production and the application of CAD/CAM/CAE systems, metal casting, welding and plastic processing of materials.

Employment of the graduates:

- Based on the in-depth education, acquired knowledge and skills in the field of CAD/CAM systems, design, research and testing of mechanical engineering products and technologies, CNC machine tools, modern technologies for industrial production, means for automatic process control in mechanical engineering production, mechanical engineers, masters in MEET successfully begin their realization in various fields, design and production of machines, equipment, devices, components and assemblies; in small and medium-sized enterprises in the field of tool production; in engineering companies in the field of industrial automation; in companies for the development and implementation of new products, components and assemblies; in consulting companies and companies specializing in the implementation of CAD/CAM/CAE and PLM systems and providing training for them. A large part of the graduates work in international enterprises in Bulgaria and abroad, institutes, scientific organizations and educational institutions.