



AFFIRM

Rector:

(prof. eng. Ivan Kralov, DSc)

Date:

Educational–qualification degree:

Bachelor

Professional qualification:

Industrial engineer

Training duration:

4 years

Form of education:

full time

QUALIFICATION CHARACTERISTIC

of

Bachelor of Engineering

"Industrial Engineering" (in English)

Professional field: **5.13 General Engineering**



TECHNICAL UNIVERSITY – SOFIA, BRANCH PLOVDIV

1. Educational aims

Graduates with a bachelor's degree in Industrial Engineering must be able to:

- be part of teams for the design, implementation and development of processes and systems in the production, services or management sector;
- to work effectively with internal and external team members in the global space;
- to be engaged in the continuous improvement of their qualification in the various forms and levels of education;
- to assess the impact of systems and processes on the capacity of the organization;
- understand the principles of management and apply a systematic approach to decision making;
- apply their skills and knowledge to promote the successful implementation of complex systems;
- to evaluate the effectiveness of complex processes and to find opportunities for their improvement.

2. Knowledge and skills necessary for successive professional career

The specialty "Industrial Engineering" is a branch of technology dealing with the optimization of complex processes and systems.

The course is both theoretical and practical. During the training period, bachelors have the opportunity to build their initial job skills. They gain a range of knowledge and skills in the design, application and management of complex systems and processes.

3. General theoretical training

In the course of education are studied: engineering sciences in the field of general engineering, information and communication technologies, automation, electrical engineering and electronics, as well as mathematics, informatics, economics and others.

4. Specialized training

The training course provides industrial practices and training, as well as mobility for the purpose of training or practice under the Erasmus program, etc.

5. Professional competence and employment

The industrial engineering engineer may perform production, design and management activities in: industrial production; in the installation, adjustment and operation of automated technological lines in all areas of industry, transport, energy; in the production and management of means of production.

Graduates may be employed as system consultants and analysts or designers of such systems, managers or consultants in companies, programmers or application developers. They can work in research, design, engineering companies and organizations to build complex technical, economic and organizational management systems.