

## **OP 6B07105-Industrial Engineering**

**The purpose of the educational program** is professional training of highly qualified specialists focused on designing and implementing innovative and effective engineering technologies that contribute to sustainable development, on the formation of a technically competent, socially responsible and environmentally oriented person with creative thinking, capable of responding to the challenges of modern industry.

### **Development plan**

1. Improvement of the curriculum:
  - Updating disciplines with a focus on digital engineering, sustainable technologies, automation and robotics.
  - Implementation of project-based training based on real production cases.
2. Human resource development
  - Professional development of teachers, internships at industry enterprises.
  - Involvement of industry experts and practitioners in conducting disciplines and master classes.
3. Infrastructure and digitalization
  - Equipping laboratories with modern equipment, including CAD/CAM systems
  - Development of online courses and digital training courses.
4. International cooperation
  - Creation of double degree programs and academic exchanges.
5. Interaction with the industry
  - Development of a system of internships and internships at enterprises.
  - Students' participation in research and development projects in cooperation with production facilities.

### **Evaluation of the effectiveness of the development of the OP**

- Monitoring the career paths of graduates.
- Assessment of student and employer satisfaction.
- Publications of scientific papers and participation of students in conferences.
- The level of international recognition of the program.

## **OP UNIQUENESS**

**1. The program combines knowledge** from mechanical engineering, economics, management, information technology and sustainable development. This allows graduates to be versatile specialists, ready to solve complex engineering problems.

### **2. Focus on innovation**

Focus on designing and implementing **innovative and efficient** mechanical engineering technologies, including digital manufacturing, robotics, additive manufacturing, and smart factory technologies.

### **3. Sustainable development as a priority**

The EP provides students with a systematic understanding of the principles of environmental safety, resource conservation and social responsibility, which is especially relevant in the context of implementing the Sustainable Development Goals (SDGs).

### **4. Developing creative engineering thinking**

The program is aimed at educating an engineer who is able **to think outside the box**, look for new approaches to designing and optimizing production processes.

### **5. Practice-oriented approach**

Broad involvement of students in project activities, industrial internships and case studies based on industrial partners forms a real professional experience in the course of training.

### **6. Social significance**

The program is aimed at developing a person who is able to make decisions taking into account not only technical, but also social, economic and environmental components.

#### **7. Global and national demand**

Graduates are ready to work both in the domestic market and in the context of global industrial competition thanks to their competencies in the field of digitalization and sustainable development.