ESKISEHIR OSMANGAZI UNIVERSITY

**ESKISEHIR** **VOCATIONAL SCHOOL**

**MACHINERY PROGRAM**

# General Information

# The Machinery Program has started education in the 2013-2014 academic year. It gives information about machining methods, manufacturing processes, computer-aided design and manufacturing (CAD-CAM), maintenance techniques, measurement and quality control, hydraulic and pneumatic systems, material recognition, and testing within the scope of the two-year education terms.

# In the industry of our country, efficient, on-site, and effective use of all machines during the implementation of production at the highest level has great importance. In the field of manufacturing, machinery design, machining, machinery elements, computer-aided design, and analysis, technical staff is needed. Graduates of the Machinery Program (Machinery Technicians) have knowledge and skills about traditional manufacturing methods, design techniques, material selection, computer-aided design, and production methods. A machinery technician is a technic personnel who establishes the connection between the production engineer and the worker who makes production in a factory due to his theoretical and practical qualifications.

# Qualification

# Students who complete the program are awarded an associate degree in Machinery.

# Level of Qualification

# Associate degree

# Specific Admission Requirements

The Measurement, Selection, and Placement Center (ÖSYM) places students in the Machinery Program. Students are placed every year with the relevant score type within the quota specified in the guide. Students who choose to be the top student within the valedictorian quota are placed in order according to the relevant score type.

1. **Recognition of Prior Learning**

# Recognition of previous formal learning in Turkish Higher Education institutions, vertical, horizontal, and university transfers, "Regulation on the Principles of Transfer Between Associate and Undergraduate Programs in Higher Education Institutions, Double Major, Minor and Inter-Institutional Credit Transfer" determined by the Council of Higher Education. It is carried out within the scope of other relevant regulations.

# In Turkey, an exemption exam is held at the beginning of each academic term for foreign language courses within the scope of recognition of certificate-based or experience-based learning outside formal education institutions. Students who take the exam and pass the exam are exempt from the relevant courses in the curriculum.

# Qualification Requirements and Regulations

The student must have passed all the courses in the program and must not have an FF, DZ, or YZ grade. In this program, the student must obtain a minimum of 120 ECTS credits and have a GPA of at least 2.00 out of 4.00.

All students training at Eskişehir Osmangazi University Machinery Program are obliged to intern for at least 40 working days during their 2-year education.

# Program Profile

The main purpose of the Machinery Program is to train students as qualified technicians to work for national and international companies. The Machinery Program aims to complete the lack of qualified manpower who have basic knowledge and skills in traditional manufacturing methods, design techniques, material selection, computer-aided design, and production methods to work in different industries.

1. **Program Outcomes**

• To be able to perform operations related to design, modeling, simulation, and production by using CAD-CAM programs and CNC machines.

• To be able to read technical and professional drawings, to gain hand and computer-aided drawing-design ability.

• Knowing the measurement and control tools and machines, having the ability to use them, and contributing to the manufacturing process during and after manufacturing in quality control units.

• To know the working principle of hydraulic-pneumatic systems, and circuit elements, to read the circuit scheme, to make hydraulic-pneumatic circuit design and calculations, to have the ability to perform periodic maintenance and repairs of hydraulic-pneumatic circuits.

• Knowing the machinery elements and properties used in machinery design.

• Knowing production methods, to be able to use the machines in production, especially to design apparatus for production.

• To have general information about the machining of metals and to solve the problems that will occur during production. To know the machining methods and to have the ability to perform manufacturing operations using universal machines.

• To know the material, to examine the materials and internal structures, to perform material examinations, to know thermal processes to apply to materials.

• To fulfill the functions of business management, to manage the production process, to know quality and occupational health - work safety - to contribute to the establishment of the infrastructure for the installation of the management systems and to establish them in the workplace.

• To be able to communicate with employees at all levels in the company, to have professional, social ethical values and the necessary research by using technological facilities, to be part of the teamwork, and to have individual responsibility.

• To have an awareness of the importance of occupational health and safety in working life, to comply with the rules related to occupational health and safety, to make risk analyses, to know what to do in emergencies and first aid practices, and to do it when necessary.

# Occupational Profiles of Graduates

Graduates who have the title of “Machinery Technician” reach a wide employment network in the fields of production, quality control, maintenance, and technical service in the public and private sectors. They can work in the fields of machining, computer-aided design and manufacturing (CAD-CAM), maintenance and repair, measurement and quality control, hydraulic and pneumatic systems, welding, material selection, and testing.

# Access to Further Studies

# Students who complete the Machinery Program can make vertical transfer to the undergraduate programs spefied in the DGS guide.

# Examination, Regulations, Assessment and Grading

# The measurement and evaluation method applied for each course is described in detail in the Course Information Form.

# Graduation Requirements

# Graduation requirements are as explained in the "Qualification Conditions and Rules" section.

# Mode of Study (Full-Time, E-Learning)

Full Time

# Address and Contact Details

# Chapter / Program Director

# ESOB Antrepo Cad. Teknoloji Bulvarı No:1 Eskişehir Tel:0222 236 14 15

# Head of the Machinery Program: Asst. Prof. Dr. Gökçe ÖZDEN GÜRCAN

# Department / Program Facilities

# 2 Associate Professors, 1 Assistant Professor, and 2 Lecturers work in the Machinery program.

# Academic Staff

# Associate Professor Dr. Fatih Hayati ÇAKIR

# Associate Professor Dr. Halil Yalçın AKDENİZ

# Assistant Professor Dr. Gökçe ÖZDEN GÜRCAN

# Lecturer, Ph.D. Onur ÜNLÜOĞLU

# Lecturer Muhammed Said ÖZER