

## **Educational program**

### **MECHATRONIC OPERATOR**

## **1. EXAMINATION UNIT**

### **FINAL WORK**

## **2. GOALS**

On examination, we estimate the general and professional competencies that are acquired by students in the professional program modules, which are connected to the general objectives of the professional theories, practical training and core competencies.

On examination, the candidate found the following vocational and key skills:

- connect practical work with theoretical knowledge, principles and bases,
- professional communication with colleagues (subscriber, parent ...)
- preparation of their own place of work
- produce rational justification and work orders
- control and assess the results of own work
- use of various metallic and non-metallic materials and choose the correct procedures for using them,
- read technical and technological documentation, with particular emphasis on understanding the logic of electrical, electronic, pneumatic and hydraulic schemes
- use information and communication technology for searching, processing, evaluation and data analysis in their work,
- maintaining the machines and run production lines
- systematically searching, localization and elimination of simple errors on the machines and devices
- control product quality
- responsible management of environmental protection, ensuring your safety and job security,
- hazards and injury prevention and appropriate response to imminent danger and harm..

## **3. Derivation of the exam**

The final works of the candidates demonstrate theoretical and practical knowledge they have acquired in education. It can prove to be trained in the profession. Candidates demonstrate their professional competence with the product or service.

Examination of the final work ends with the defence, which is bound to produce a product or service. The final work can be performed individually or collectively, by the method of project work. The candidate must demonstrate knowledge in the examination areas: planning, implementation, documentation and defence.

In the case of teamwork candidate must demonstrate knowledge of the total annual labour.

The final work product or volume, and defence services, and results from real professional situations.

The final work must be structured in such a way that allows assessing the professional competence and mastery of key competencies:

- effective communication
- use of modern technologies and information resources (the ability to search, collect, process, present and evaluate of information)
- protecting their own health and the health of others
- relationship to the workplace, the nature and foreign property.

## **4. COMPETENCES**

The list of products / services are defined knowledge and skills they must master the candidate's professional standard mechatronic operator and objectives of education.

With final work the candidate demonstrate knowledge, skills and competence in the following key operational part of professional standards:

- reception and analysis of machining and other documentation and guidance
- drafting machine
- management of working resources in the production
- control of the production process
- detect errors on the machine or production line
- adjustment of machinery and equipment
- preventive controls supplied
- the repair of machinery and equipment
- proposal and the perceived need for replacement parts
- reporting on the state of working resources
- cleaning of spare parts, workshop, workplace
- communication with superiors and colleagues
- care for their own protection and health and environmental protection

In preparing the final part of the examining board must consider time dimension the candidate needs to successfully carry out any planned work

## 5. GRADING KNOWLEDGE AND SKILLS

### 5.1 ASSESMENT CRITERIA

Scope of evaluation	Assesment criteria	No. of points
1 Planning	<ul style="list-style-type: none"> <li>The acquisition of task:               <ul style="list-style-type: none"> <li>verify the integrity of the work order</li> <li>check the integrity of the technical documentation</li> <li>obtaining any missing information on the task</li> </ul> </li> </ul>	10
	Preparation and organization of implementation tasks: <ul style="list-style-type: none"> <li>Planning and organizing the implementation of the work</li> <li>Preparation of assemblies that are intended to repair or replace</li> <li>preparing the working site</li> <li>preparation of tools and instruments</li> <li>Preparation of materials and spare parts</li> <li>Preparation of equipment and preparations for a particular job</li> </ul>	
2 Execution	Execution of tasks: <ul style="list-style-type: none"> <li>review of the machine before and after surgery and its use</li> <li>use appropriate tools and instruments</li> <li>use of data obtained through measurements</li> <li>use available information sources</li> <li>compliance with safety regulations on environmental protection and health</li> <li>compliance with fire regulations</li> <li>Use the documentation necessary to complete the work</li> <li>compliance with quality assurance standards</li> <li>caring for an orderly workplace</li> </ul>	60
	<ul style="list-style-type: none"> <li>Checking own work:               <ul style="list-style-type: none"> <li>control of their own work based on documentation</li> <li>justify the time spent on the mission</li> <li>justify the cost of the mission</li> <li>quality of service or product</li> </ul> </li> </ul>	
3 Documentation	Preparation of reports and documents: <ul style="list-style-type: none"> <li>preparation of work order completion</li> <li>preparation of documentation on the part of the technological process of</li> </ul>	5
4 Interpretation	<ul style="list-style-type: none"> <li>Presentation of the work:               <ul style="list-style-type: none"> <li>demonstration activities</li> <li>analyzing the way the tasks</li> <li>justification of the solution</li> </ul> </li> </ul>	25
	<ul style="list-style-type: none"> <li>Expert interview:               <ul style="list-style-type: none"> <li>interpretation of other possible ways of implementation tasks</li> </ul> </li> </ul>	
<b>TOTAL</b>		<b>100</b>

*f) Evaluation*

**EVALUATION SHEET**

<b>Scope of evaluation</b>	<b>Max. points</b>	<b>Achieved</b>
<b>PLANNING</b>	<b>10</b>	
Working plan	3	
Preparation of working place	5	
Preparing the list of material	2	
<b>EXECUTION</b>	<b>60</b>	
Choosing the right procedures	10	
Using the right tools and machines	5	
Choosing appropriate material	5	
Quality of work	15	
Visual and dimensional inspection	5	
Defined working place	5	
Use of protective equipment	5	
Considering safety regulations	5	
Protecting the environment (disposal of waste material)	5	
<b>DOCUMENTATION</b>	<b>5</b>	
calculations	2	
Technical documentation	3	
<b>INTERPRETATION</b>	<b>25</b>	
presentation	10	
innovativeness	15	
<b>TOTAL</b>	<b>100</b>	