

Code and title of specialty (direction): 152 «Metrology and Information-Measuring Technology».

Title of specialization: «Devices and Systems for Environmental Monitoring».

Code and title of the field of knowledge: 15 «Automation and Instrumentation».

Qualification: Master of Automation and Instrumentation with the specialization «Devices and Systems for Environmental Monitoring».

Number of credits: 120 ECTS credits.

Grade of higher education: The second (Master) one corresponds to the seventh qualification degree of the Ukrainian National Qualifications Frame.

Requirements to the previous education grade: A person has a right to get a Master degree under the condition of a Bachelor degree. If the previous degree was received in another country, a nostrification is required.

Qualification requirements: Higher education document is given to a person who completed the program successfully and was certified. Graduation certification is done by evaluating competence formation level. The form of certification is qualification paper defense.

Program study results: to use conceptual knowledge including knowledge of modern achievements for solving complex and unpredictable tasks and problems; to use theory, principles, methods and concepts of general engineering sciences in education and professional activity; to collect and interpret information and choose methods and tools to solve professional tasks; to apply innovative approaches to solve professional tasks; to inform specialists and non-specialists of information, ideas, problems and solutions and personal experience in the field of professional activity; to manage complex actions or projects; to form a communication strategy; to use a foreign language for professional purposes; to be responsible for the professional development of individuals and / or groups; to be in charge of decision-making under unpredictable conditions; to study with a high level of autonomy.

Technological professional activities: to design devices and systems for environmental monitoring; to introduce new materials and innovative technologies in the field of professional activity; to calculate and adjust modes of devices and systems for environmental monitoring for different operating conditions; to put into practice methods of diagnostics of efficiency and reliability level of devices and systems for environmental monitoring; to ensure the safety of components for devices and systems for environmental monitoring in accordance with the operating rules; to restore the quality properties of systems and technologies.

Organizational professional activities: to perform technical maintenance of the stages of master's in automation and instrumentation activities; to provide legal and technical

operation of devices and systems for environmental monitoring; to organize the use of devices and systems for environmental monitoring, to control the use of devices and systems for environmental monitoring.

Management professional activities: to plan components of technological and organizational activities; to monitor components of technological and organizational activities; to improve components of technological and organizational activities.

Employment competences: Master on Speciality 152 «Metrology and Information-Measuring Technology» with the specialization «Medical Devices and Systems» may hold positions in companies, small businesses and institutions as a research engineer; a biomedical engineer; a researcher and consultant (in the field of engineering); a university teacher.

Further study perspective: Master on Speciality 152 «Metrology and Information-Measuring Technology» with the specialization «Medical Devices and Systems» may continue studying in postgraduate doctoral studies program in Field 15 «Automation and Instrumentation».

Department graduating a student with degree: Department of Electrical Engineering.

Institute / Faculty: Faculty of Engineering.

Educational program supervisor: Professor, Doctor of Technical Sciences Shvedchykova I. O., ishved@i.ua; +38 (050) 971 2574.