

Code and title of specialty (direction): 161 “Chemical technology and Engineering”

Title of specialization: Chemical technologies of organic substances

Code and title of the field of knowledge: 16 “Chemical and bioengineering”

Qualification: *master of chemical technology and engineering, specialization Chemical technologies of organic substances*

Number of credits: 90 ECTS credits

Grade of higher education: the second (Master), corresponds to the seventh qualification level of Ukrainian National Framework of Qualifications.

Requirements to the previous education grade: a person has the right to acquire a Master's degree in case of possession of a Bachelor's or a Specialist degree in the appropriate specialty (direction) with the additional exams compiling. Provided that the previous degree was obtained in another country, it requires nostrification.

Qualification requirements: the higher education document is issued to a person who had successfully completed the educational program and was certified. Form of attestation – public defense of a Master's thesis.

Program study results: to use knowledge, including knowledge of modern achievements, in order to solve complicated tasks in the field of chemical technologies of organic substances; research work conducting and application of innovative approaches in the organic synthesis direction; to collect information, to choose methods and tools for professional technological tasks resolution; to solve technological and environmental safety issues with the waste amount reducing of organic synthesis chemical enterprises to the surrounding environment; to use a foreign language at the professional and technical level; to be able to solve professional technological tasks, in accordance with the design and research activities. Technological professional activity: basic provisions of organic chemistry; theoretical bases of organic substances chemical technologies, basic methods of industrial waste processing of organic synthesis chemical production, typical and specific chemical equipment of organic substances technologies, designing principles of organic synthesis chemical production. Organizational professional activity: ability to analyze existing methods of research, management and regulation of organic substances chemical processes occurring in apparatuses and installations; creation of low-waste organic synthesis chemical technologies in terms of the environment preservation; taking into account modern ideas about methods and principles of structural organization of technological objects of organic substances chemical technologies. Management professional activity: to accumulate knowledge and skills; to use modern software and information support for design and analysis of organic substances chemical processes; to use the instrumental methods of observation, description, identification or classification of objects of organic substances chemical technology and chemical industry products.

Employment competences: Master of specialty 161 "Chemical technology and Engineering", specialization *Chemical technology of organic substances* may hold positions in universities, colleges, specialized schools, technical schools; scientific positions in the field of production, design and research: chemical and scientific-production enterprises, state institutions, engineering companies, design and research institutes, counseling.

Further study perspective: Master of specialty 161 "Chemical technology and Engineering" can continue the education at the third (educational and scientific) level - doctoral programs in industries 10 “Environmental studies”, 16 “Chemical and bioengineering”, 18 “Production and technology”.

Department graduating a student with degree: department of chemical engineering and ecology.

Institute / Faculty: faculty of engineering.

Educational program supervisor: Professor, Doctor of technical sciences Glikin M.A., irene555@i.ua; tel. 064528814.