

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

**Title of specialization:** Chemical Technology of Fuel and Carbon Materials

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

**Qualification:** *master of chemical technology and engineering*

**Number of credits:** 90 ECTS credits

**Grade of higher education:** the second (Master) grade of specialization Chemical Technology of Fuel and Carbon Materials, 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. Graduation certification is carried out by assessing the degree of competence formation. The form of attestation – public defense of a Master's thesis.

**Program study results:** to use knowledge, including knowledge of modern achievements, to solve complicated tasks and problems in the field of chemical technologies of fuel and carbon materials; to carry out researches and to apply innovative approaches in the direction of oil chemistry, oil refining and petroleum products synthesis; to collect information, to choose methods and tools for professional technological tasks solving; to solve technological and environmental safety issues of oil chemical and oil refining enterprises; 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 carbon materials oil chemistry and oil refining; theoretical foundations of fuel technologies and carbon materials, of basic methods of oil chemicals processing and petroleum products synthesis; typical equipment of technology and principles of oil chemicals and carbon materials refining designing industries. Organizational professional activities: ability to analyze existing research methods; management and regulation of oil chemical and oil refining processes of carbon materials occurring in apparatus and installations; taking up to the attention modern ideas about the methods and principles of technological objects work structural organization of chemical technologies of carbon materials oil chemistry and oil refining. Management professional activity: to accumulate knowledge and skills to use modern software and information support for simulation and analysis of carbon materials oil chemistry and oil refining processes; to use the instrumental methods of observation, description, identification or classification of technology objects of carbon materials oil chemistry, oil refining and products synthesis of the oil chemical and oil refining industry.

**Employment competences:** Master of specialty 161 "Chemical technology and Engineering", specialization *Chemical Technology of Fuel and Carbon Materials* 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, Associate professor, Doctor of technical sciences Glikina I.M., irene555@i.ua; tel. 0959148128.

