

Objectives and Learning Outcomes of the Master's Degree Programme 7M07162 - Chemical Technology of Inorganic Substances

Programme Goal: Training of highly demanded research and teaching personnel in the field of Chemical Engineering for the higher education system and the scientific sector.

Learning Outcomes of the Master's Degree Programme:

LO1 Critically analyze scientific and technical information in the field of chemical engineering, applying knowledge of a foreign language and information resources, summarizing research results in scientific articles, reports and dissertation taking into account principles of scientific ethics.
LO2 Analyze ideological and methodological problems, including of interdisciplinary nature based on provisions of the philosophy of science and research methodology.
LO3 Apply scientific organization of pedagogical activity in higher education demonstrating possession of socio-psychological technologies for managing mass behavior, effective teaching methods in the field of chemical engineering.
LO4 Effectively coordinate a work of enterprise departments, showing leadership qualities and critical thinking when making operational management decisions in non-standard situations.
LO5 Organize operational dispatch control of the production process for obtaining inorganic compounds, applying knowledge and skills to analyze problems in interdisciplinary related fields of knowledge.
LO6 Suggest ways to modernize the technological scheme of production, new methods of recycling industrial waste from production of inorganic substances and compounds based on analysis of modern achievements in science and technology.
LO7 Independently plan and carry out scientific research, substantiating and proving research results when discussing with specialists and a wider audience in domestic and international scientific community.
LO8 Analyze the experimental results and results of mass and heat calculations of studied chemical-technological processes using mathematical modeling programs and artificial intelligence to justify the optimal production mode.
LO9 Develop acquired knowledge and skills to a level that allows to study in a doctoral program, to improve qualification lifelong.