

7M06140- «Mathematical and computer modeling»

Objectives and learning outcomes of the undergraduate program

Purpose of the EP	Learning outcomes
<p>Training of specialists with conceptual, analytical and logical thinking, who are able to determine the organization's strategy, possessing a complex of new knowledge in the field of mathematical and computer modeling of processes.</p>	<p>LO1 Possess written and oral communication in native and foreign languages, use information management skills</p> <p>LO2 Be able to independently develop efficient algorithms and programs for computer modeling of natural and man-made processes</p> <p>LO3 To know the methods for developing efficient models and algorithms for their implementation in the study of the dynamics of gases and liquids in chemical technology devices, power plants, as well as in modeling problems of hydrodynamics, heat and mass transfer, and biotechnology.</p> <p>LO4 To be able to analyze the stages of development of mathematical modeling of processes and analysis of the results of numerical experiments.</p> <p>LO5 Be able to apply the latest achievements of mathematical and computer modeling in science, banking, insurance companies and financial structures, incl. foreign scientists</p> <p>LO6 Understand the need to work in a team to solve modeling problems that require the coordination of efforts of several performers, with knowledge of the tasks of environmental physics.</p> <p>LO7 Ability to plan and conduct numerical and full-scale experiments of research with the interpretation of the results obtained on the basis of modern modeling methods in the field of economics, engineering and technology.</p> <p>LO8 Critically analyze existing methods for developing mathematical models in various subject areas using information technology.</p> <p>LO9 Realize the need for and have the ability to independently learn and improve their qualifications throughout their lives.</p>