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| Educational program | 7M01507 Chemistry |
| EP purpose  |  Training of highly qualified scientific and pedagogical personnel in various areas of chemical, competitive in the labor market, in-demand modern educational institutions, adapted to the dynamically changing conditions of social and professional activity, with theoretical and practical individual training. |
| EP type | New  |
| Level on NQF | 7 |
| Level on SQF | 7 |
| The awarded academic degree | Master  |
| Period of study | 2 |
| Volume of the credits | 120 |
| Language of education | Kazakh, Russian, English |
| Date of approval of the OP at the Board meeting | 06.04.2022 (protocol No. 10) |
| Professional standard | Pedagogue  |

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| № |  Learning outcomes: |
| 1 | Demonstrate knowledge of the main aspects of management psychology; the need to understand their own prospects for managerial growth |
| 2 | Demonstrate knowledge of a foreign language in interpersonal communication, professional and scientific activities |
| 3 | To model the educational process taking into account the complex of psychological, pedagogical and methodological knowledge, the rational organization of pedagogical work and research work, using modern innovative technologies for teaching chemistry, analyzing the core problems of reforming higher education taking into account modern requirements |
| 4 | Interpret and summarize information in the field of chemical ecology, use modern chemical and physico-chemical methods for analyzing environmental objects |
| 5 | Analyze and comprehend the realities of modern theory and practice on the basis of the history and philosophy of science, the methodology of natural science, socio-humanitarian and technical knowledge |
| 6 | Formulate modern problems and tasks of scientific research in the field of inorganic, analytical, colloidal, physical chemistry and educational technologies, with a choice of methods and means for solving the tasks set |
| 7 | Apply modern teaching methods and information technologies for organizing educational activities in the field of chemistry |
| 8 | Apply their professional knowledge and skills to solve specific theoretical and applied problems, using fundamental and modern knowledge and methodology of physical and chemical research to develop new and improve existing methods of studying substances and materials |
| 9 | Explain the mechanism of the chemical processes of organic and inorganic synthesis, analyze the transition states of the chemical process, the influence of static and dynamic reaction factors to assess the reactivity of molecules |
| 10 | Conduct independent scientific and experimental research, form conclusions and solutions on the problem under study |