

National Technical University of Ukraine

"Kyiv Polytechnic Institute"

Department of machinery and apparatus chemical and petroleum industries

A P P R O V E D

Head of Department MACPI

_____ Y.N. Kornienko

September 16, 2015

INDIVIDUAL EDUCATIONAL PLAN

specialty 8.05050315 “Equipment for Chemical Productions and Construction
Materials Plants”

specialization “Machinery and equipment of chemical and petroleum industries”

student V of the course the group LN- 51m

Kushnir Alexander Sergeyevich

in 2015/2016 academic year

Scientific adviser: Associate Professor at the Department of Machines and Apparatus for
Chemical and Oil Refining Production, Candidate of Engineering Sciences

A.R.Stepaniyk

Theme of master's thesis:

"The process of crystallization of ammonium sulfate in the presence of humates and
saponite "

Kyiv 2015

Implementation of curriculum for a master

<i>№</i>	<i>Name of credit modules</i>	<i>Number of ECTS credits</i>	<i>Type reporting</i>	<i>Note</i>
Осінній семестр				
1.	Civil Defence	1	Differential test	
2.	Intellectual Property	1	Test	
3.	Design Engineering Equipment – 1	7	Exam	
4.	Academic Year Project within the Subject: Design Engineering Equipment.	1,5	Course project	
5.	Foreign Language for Specific Purposes -1	1,5	–	
6.	Computer Design of Chemical Manufactures Equipment	2	Test	
7.	Mounting and Maintenance of Chemical Manufactures Equipment	2,5	Test	
8.	Automation of Productive Processes – 1. Local System of Automated Regulation	4	Differential test	
9.	Fundamentals of Marketing	1,5	Test	
10.	Equipment for the Production and Processing of Polymers - 1. Equipment of production of polymers	4	Exam	
11.	Synthesis and Separation Equipment in the Chemical Industry-1. Equipment of membrane processes of division	4	Exam	
Весняний семестр				
1.	Specialized Labor Safety	1	Differential test	
2.	Factors of Successful Employment According to Specialization	1	Test	
3.	Fundamentals of Scientific Researches	2	Test	
4.	Foreign Language for Specific Purposes - 1	1,5	Test	
5.	Higher School Pedagogy	1,5	Test	
6.	Transfer Processes while Equipping of Chemical Manufactures-1. Processes of oil-processing productions	3	Test	
7.	Academic Year Project within the Subject -1: Processes of oil-processing productions	1,5	Course project	
8.	Manufacturing Technology, Reliability and Durability -1. Design of processes of transfer	5	Exam	
9.	Automation of Productive Processes – 2. Automated Process Control System	4	Exam	
10.	Processes of Deep Refrigeration	4,5	Test	
11.	Equipment for the Production and Processing of Polymers - 2. Extrusion methods of processing of polymers	3,5	Exam	
12.	Synthesis and Separation Equipment in the Chemical Industry-2. An equipment of synthesis is in chemical industry	3,5	Exam	

Research work

1.	Analysis of literature and patent sources on the process of crystallization of ammonium sulfate in the presence of humates and saponite. Justification goals and objectives of the study. Preparing a patent application.	Division thesis. An application for a patent.	15.10.15
2.	According to the results of the analytical review of literature sources to prepare abstracts for scientific and technical conference.	Abstracts.	15.11.15
3.	Development of a physical model of the process of crystallization of ammonium sulfate in the presence of humates and saponite. Design and development of a mathematical model of the process crystallization of ammonium sulfate in the presence of humates and saponite.	Division thesis.	30.12.15
4.	Choice and justification of methods for solving mathematical and empirical models.	Division thesis.	28.02.16
5.	Preparation of materials to research to be published articles in professional journals and abstracts to publications and participation in the conference.	Articles in professional journals.	15.03.16
6.	Modernization of the laboratory setting to study the process of crystallization of ammonium sulfate in the presence of humates and saponite.	Division thesis.	15.04.16
7.	Training materials on the research for publication of abstracts and participation in the conference.	Abstracts	25.04.16
8.	Conducting complex research and experimental determination of the process crystallization of ammonium sulfate in the presence of humates and saponite	Division thesis.	30.05.16

Pedagogical and educational work

1.	Assistance SRWS in section "Processes and equipment of chemical and oil industries"		During training
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Scientific adviser

Associate Professor of Department MACPI, c. of e. s.

A.R.Stepaniyk

Masters

A.S. Kushnir

Approved at the department meeting MACPI

Protocol № 2 dated September 16, 2015