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NATIONAL AVIATION UNIVERSITY
Educational and Research Institute of the Humanities
Department of Foreign Languages for Professional Purposes

AGREED
Director of ER ASI

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"_____"_____2017

APPROVED
Vice-Rector for Academics
and Educative Activity

_____ T. Ivanova
"_____"_____2017

Quality Management System

COURSE TRAINING PROGRAM

on

Professional Foreign Language

Field of study: 14 « Electrical Engineering »
Speciality: 142 « Power Machinery »
Specialization: «Gas Turbine Plants and Compressor Stations»

Year of Study – 2nd , 3d

Semesters – 3d, 4th , 5 th ,6 th

Practicals – 134
Self-study – 106
Total (hours/ECTS credits) – 240/8

Graded Test – 3d, 4th , 5 th ,6 th semesters

Index ECB –1–142 /16–3.3

The Course Training Program on "Professional Foreign Language" is based on the Bachelor Extended Curriculum № ECB –1–142 /16 for Speciality 142 «Power Machinery» and Specializations "Gas Turbine Plants and Compressor Stations", Syllabus for this Subject, Index CB – 1– 142/16 – 3.3, approved "___" _____ 2017 p., and correspondent normative documents.

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Discussed and approved by the Scientific – Methodological – Editorial Board of the Humanities Institute, Minutes № ___ of ___ ___ 201__ .

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CONTENTS

INTRODUCTION

The Course Training Program of the discipline is developed on the basis of the Syllabus on "Professional Foreign Language" and "Methodical instructions for the development and execution of syllabus and course training program of the discipline", put in action by the order of 16.06.2015. №37.

The rating assessment system (RAS) is an integral part of Course Training Program and provides for measuring the quality of all types of classroom and self-study work done by students as well as the level of their knowledge and skills by assessing them in values during current, module and semester test with further transfer of these values into the national scale and the ECTS scale.

The rating assessment system (RAS) envisages the use of the following grades: the current module grade, the module test grade, the total module grade, the semester module grade, the examination grade and the total semester grade.

2. SUBJECT CONTENT

2.1. Training schedule of the subject

№ пор.	Topic	Academic Hours		
		All	Practicals	Self- study
1	2	3	4	5
3 semester				
Module №1 "Energy supply. Gas Transmission System and its Components"				
1.1.	Energy supply	3	2	1
1.2.	Mineral and fuel energy resources	3	2	1
1.3.	The structural units of gas transmission system	4	2	2
1.4.	Ukraine's gas transmission system	4	2	2
1.5.	Natural gas processing	3	2	1
1.6.	Gas pipelines	3	2	1
1.7.	Compressor stations	4	2	2
1.8.	Maintenance of gas transmission system	3	2	1
1.9.	Gas mains	4	2	2
1.10.	Natural gas storage	3	2	1
1.11.	Gas storage facilities	4	2	2
1.12.	Gas transmission safety	3	2	1
1.13.	Gas metering	4	2	2
1.14.	Oil transportation system	4	2	2
1.15.	Energy and environment	4	2	2
1.16.	Environmental protection	4	2	2
1.17.	Module test №1	3	2	1

Total for the module №1		**60**	**34**	**26**
Total for 3d semester		**60**	**34**	**26**
4 semester				
Module №2 “ Compressors. Types of Compressors. Compressor Stations ”				
2.1.	Compressors	3	2	1
2.2.	Compressor units	3	2	1
2.3.	Centrifugal compressor	4	2	2
2.4.	Axial-flow compressor	4	2	2
2.5.	Reciprocating compressor	3	2	1
2.6.	Membrane and rotary screw compressors	3	2	1
2.7.	Spiral compressors	4	2	2
2.8.	Inverter compressors	3	2	1
2.9.	Rotary compressors	4	2	2
2.10.	Vortex compressors	3	2	1
2.11.	Turbocompressors	4	2	2
2.12.	Compressors prime mover	3	2	1
2.13.	Compressor stations	4	2	2
2.14.	Maintenance of compressor stations	4	2	2
2.15.	Compressor shops	4	2	2
2.16.	Maintenance of compressor units	4	2	2
2.17.	Module test №2	3	2	1
Total for the module №2		**60**	**34**	**26**
Total for 4th semester		**60**	**34**	**26**
5 semester				
Module №3 “ Turbines. Types of Turbines ”				
3.1.	Turbines	3	2	1
3.2.	Types of turbines	3	2	1
3.3.	Turbines application	4	2	2
3.4.	Gas turbines	4	2	2
3.5.	Gas turbine compressor units	3	2	1
3.6.	Industrial gas turbines	3	2	1
3.7.	Steam turbines	4	2	2
3.8.	Hydraulic turbines	3	2	1
3.9.	Impulse turbines	4	2	2
3.10.	Impulse turbines oparation	3	2	1
3.11.	Reaction turbines	4	2	2
3.12.	Reaction turbines application	3	2	1
3.13.	Impulse - reaction turbines	4	2	2
3.14.	Maintenance of turbines	4	2	2
3.15.	Smog as an environmental problem	4	2	2
3.16.	Environmental benefits of natural gas	4	2	2
3.17.	Module test №3	3	2	1
Total for the module №3		**60**	**34**	**26**
Total for 5th semester		**60**	**34**	**26**

6 semester				
Module № 4 “Anergy Saving. Environmental Protection”				
4.1.	Types of energy	3	2	1

4.2.	Heat energy	4	2	2
4.3.	Energy use	4	2	2
4.4.	Energy saving	4	2	2
4.5.	Recycling and reusing energy resources	3	2	1
4.6.	Energy sources	4	2	2
4.7.	Non-renewable resources	4	2	2
4.8.	Alternative energy sources	3	2	1
4.9.	Solar energy	4	2	2
4.10.	Wind energy	3	2	1
4.11.	The perspectives of wind energy	4	2	2
4.12.	Bioenergy	4	2	2
4.13.	The use of bioenergy	4	2	2
4.14.	Hydroenergy	4	2	2
4.15.	Nuclear energy	4	2	2
4.16.	Module test №4	4	2	2
Total for the module №4		**62**	**32**	**28**
Total for 6th semester		**62**	**32**	**28**
Total for the subject		**240**	**134**	**106**

3.EDUCATIONAL MATERIALS ON DISCIPLINE

3.1. List of references

Basic references.

3.1.1. Акмалдінова О.М., Карпенко М.В., Максимович Г.О., Поповська І.І. “Compressor Stations.” Навчальний посібник. – К: НАУ, 2010 р.

3.1.2. Акмалдінова О.М., Поповська І.І., Максимович Г.О., Семенюк Н.Г. Англійська мова. Energy Sources and Transmission: Навчальний посібник. – К: НАУ, 2009. – 160 с.

3.1.3. Акмалдінова О.М., Кравчук О.Ю. Методичні вказівки і завдання для самостійної роботи студентів ІІ курсу спеціальності 8.090522 «Газові установки і компресорні станції». – К: НАУ, 2004 р.

3.1.4. Акмалдінова О. М., Будко Л.В. Aircraft Systems.Методична розробка для студентів І-ІV курсів Аерокосмічного інституту. – К.: НАУ, 2004 р.

3.1.5. Методичні вказівки і завдання для самостійної роботи студентів ІІ курсу ІЗДН спеціальності «Газові установки і компресорні станції». – К: НАУ, 2004 р.

Additional references.

3.1.6. Акмалдінова О.М., Будко Л.В., Старовойтова Л.І. Навчальний посібник для студентів усіх спеціальностей НАУ “High-Style Socio-Political Terminology.– К.: НАУ, 2005, – 228с.

3.1.7. Акмалдінова О.М., Фатєєва С.П. English Grammar Practice. Навчальний посібник. К., 2002р.

3.1.8. Articles from original periodic literature.
3.1.9. Newspaper articles on social-political topics.
3.1.10. English Grammar textbooks.
3.1.11. Technical dictionaries.

3.2. List of basic guidance materials for the subject

№ пор.	Name	Code topics for thematic plan	Number
1	2	3	4
1.	Slides, posters	1.3, 1.4, 2.1, 2.2, 2.5, 2.7, 2.9	7 .
2.	Guidelines for the practical classes	1.2, 1.5, 2.4, 2.8	2 copies and their electronic versions
3.	Manuals and computer tests	1.1-1.3, 2.1, 2.2	2 copies and their electronic versions

4. Rating System of knowledge and skills assessment

4.1. Evaluation of certain types of work done by students of the points made in accordance with Table.4.1.

Table 4.1

3d, 4th , 5 th ,6 th Semesters			
Module №1,2,3,4			Max. Grade
Material for Study	Kind of Academic Activities	Max. Grade	
Basic Material	Knowledge of Terminology	6	
	Reading and Translation Skills	6	
	Dialogical Speaking Skills	5	
	Monological Speaking Skills	5	
Material for Supple-mentary Reading	Reading and Translation Skills	6	
	Dialogical Speaking Skills	5	
	Monological Speaking Skills	5	
Socio-Political Material	Knowledge of Terminology	6	
	Reading and Translation Skills	6	
	Dialogical Speaking Skills	5	
	Monological Speaking Skills	5	
For carrying out module test a student must receive not less than 41 values			
Module Test		28	
Total for module №1, 2, 3, 4		**88**	
Semester Graded Test			**12**
Total Semester Grade			**100**

4.2. Completed types of training are credited to the student if he got for them a positive rating assessment (Table. 4.2).

Table 4.2

Correspondence between the Grades and the National Scale

Grades					National Scale
Knowledge of terminology	Reading and translation	Speaking skills	Monological speaking skils	Module Test	
6	6	5	5	26-28	**Excellent**
5	5	4	4	21-25	**Good**
4	4	3	3	17-20	**Satisfactory**
Under 4	Under 4	Under 3	Under 3	Under 17	**Bad**

4.3. The amount of ratings obtained for certain types of student academic work done is the current Module Grade, which is stored in the data testing.

4.4. Total current and control module of ratings summary of Module Grade (tabl.4.3) that in points and national scale information is stored in the control module.

Table 4.3.

Correspondence between the Total Module Grades and the National Scale

Module №1	Module №2	National Scale
79-88	79-88	**Excellent**
66-78	66-78	**Good**
53-65	53-65	**Satisfactory**
under 53	under 53	**Bad**

4.5. Total final module of ratings in points of final semester Module Grade, which is converted to an assessment on a national scale (Table. 4.4).

Table 4.4

Compliance final semester module Grade estimates on a national scale

Mark in points	Evaluation of national scale
79-88	Excellent
66-78	Good
53-65	Satisfactory
Less 53	Bad

Table 4.5

Compliance with record-Grade evaluation

Mark in points	Evaluation of national scale
12	Excellent
10	Good
8	Satisfactory
-	-

4.6. Total final semester module and record of ratings in scores of Total Semester Grade, which is converted to assess the national scale and scale ECTS (Table. 4.6).

Table 4.6

Compliance with Total Semester Grade assessing national scale and scale ECTS

Total Semester Grades	National Scale	ECTS System	
		Grade	Explanation
90-100	Excellent	**A**	**Excellent** (excellent performance with insignificant shortcomings)
82 – 89	Good	**B**	**Very Good** (performance above the average standard with few mistakes)
75 – 81		**C**	**Good** (good performance altogether with a certain number of significant mistakes)
67 – 74	Satisfactory	**D**	**Satisfactory** (performance meets the average standards)
60 – 66		**E**	**Sufficient** (performance meets the minimal criteria)
35 – 59	Bad	**FX**	**Bad** (bad performance; a second testing is required)
1 – 34		**F**	**Bad** (very bad performance; a student shall retake the course)

4.7. Total Semester Grade, a national scale and scale ECTS entered in the test-examination information, training card and student academic records.

4.8. Total Semester Grade is entered into the record books and flash cards student, for example: ***92/Ex/A, 87/Good/B, 79/Good/C, 68/Sat/D, 65/Sat./E***, etc.

4.9. The total grade in a discipline taught during a few semesters is determined as the average of the total semester grades in values (for this discipline – for the third, fourth, fifth and sixth semesters) with its further transfer into the national scale and the ECTS scale. The total grade in a discipline is entered into the Appendix to the diploma.

(Ф 03.02 – 01)

АРКУШ ПОШИРЕННЯ ДОКУМЕНТА

№ прим.	Куди передано (підрозділ)	Дата видачі	П.І.Б. отримувача	Підпис отримувача	Примітки

(Ф 03.02 – 02)

АРКУШ ОЗНАЙОМЛЕННЯ З ДОКУМЕНТОМ

№ пор.	Прізвище ім'я по-батькові	Підпис ознайомленої особи	Дата ознайом-лення	Примітки

(Ф 03.02 – 04)

АРКУШ РЕЄСТРАЦІЇ РЕВІЗІЇ

№ пор.	Прізвище ім'я по-батькові	Дата ревізії	Підпис	Висновок щодо адекватності

(Ф 03.02 – 03)

АРКУШ ОБЛІКУ ЗМІН

№ зміни	№ листа (сторінки)				Підпис особи, яка внесла зміну	Дата внесення зміни	Дата введення зміни
	Зміненого	Заміненого	Нового	Анульо-ваного			

(Ф 03.02 – 32)

УЗГОДЖЕННЯ ЗМІН

	Підпис	Ініціали, прізвище	Посада	Дата
Розробник				
Узгоджено				
Узгоджено				
Узгоджено				
Узгоджено				