

NATIONAL AVIATION UNIVERSITY  
**Educational and Research Institute of Humanities**  
Foreign Languages and Applied Linguistics Department

AGREED  
Director of ER IES  
\_\_\_\_\_ O. Zaporozhets  
“ \_\_\_ ” \_\_\_\_\_ 2017

APPROVED  
Vice-Rector for Academics  
and Educative Activity  
\_\_\_\_\_ T. Ivanova  
« \_\_\_ » \_\_\_\_\_ 2017



Quality Management System

**COURSE TRAINING PROGRAM**  
on  
**“English for Specific Purpose”**

Field of study: 16 «Chemical and Bioengineering»  
Speciality: 162 «Biotechnology and Bioengineering»  
Specialization: «Pharmaceutical Biotechnology»  
«Environmental Biotechnology and Bioenergetics»

Year of Study – 2<sup>nd</sup>, 3<sup>rd</sup>

Semester – 3<sup>rd</sup>, 4<sup>th</sup>, 5<sup>th</sup>, 6<sup>th</sup>

Classroom Sessions – 136

Graded Test – 3<sup>rd</sup>, 4<sup>th</sup>, 5<sup>th</sup>, 6<sup>th</sup> semester

Self-study – 104

Total (hours/ ECTS credits) – 240/8

Index ECB-5-162/16-3.1.1

**QMS NAU CTP 12.01.04 – 01-2017**



The Course Training Program on “English for Specific Purpose” is based on the Bachelor Extended Curriculum № ECB-5-162/16 for Speciality 162 “Biotechnology and Bioengineering” and Specialization “Pharmaceutical Biotechnology”, “Environmental Biotechnology and Bioenergetics”, Syllabus for this Subject, Index CB-5-162/16-3.1, approved “ \_\_\_\_\_ ” \_\_\_\_\_ 2017 and correspondent normative documents.

Developed by:

Associate Professor

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Discussed and approved by the Foreign Languages and Applied Linguistics Department, Minutes № \_\_\_\_\_ of \_\_\_\_\_ 2017.

Head of the Department \_\_\_\_\_

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Discussed and approved by the Graduate Department for the Speciality 162 “Chemical and Bioengineering” and Specialization “Pharmaceutical Biotechnology”, “Environmental Biotechnology and Bioenergetics” – Department for Biotechnology, Minutes № \_\_\_\_\_ of “ \_\_\_\_\_ ” \_\_\_\_\_ 2017.

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Discussed and approved by the Scientific-Methodological-Editorial Board of the Educational and Research Humanities Institute, Minutes № \_\_\_\_\_ of “ \_\_\_\_\_ ” \_\_\_\_\_ 2017.

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**Master copy**



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## 1. INRODUCTION

The Course Training Program on the subject is developed on the basis of syllabus “Foreign Language for Specific Purpose” and “Methodical instructions for development and preparation of a syllabus and a course training program of subjects” adopted on 16.06.2015 by №37/order.

## 2. SUBJECT CONTENT

### 2.1. Training schedule of the subject

№	Topic	Academic Hours		
		Total	Total	Total
1	2	3	4	5
<b>2 Year</b>				
<b>3 semester</b>				
<b>Module №1 “Humanity in the environment. From biology to biotechnology”</b>				
1.1	Ecology and ecosystems Passive Voice.	3	2	1
1.2	Global ecosystem. Passive Voice (present tenses).	4	2	2
1.3	Biosphere.	4	2	2
1.4	Noosphere.	4	2	2
1.5	Methods of protection of the biosphere. Passive Voice (past tenses).	4	2	2
1.6	The population of the Earth..	3	2	1
1.7	Migration..	3	2	1
1.8	Nature and Society..	4	2	2
1.9	Man and the environment. Passive Voice (future tenses).	4	2	2



1.10	Impact of human activity on the environment.	4	2	2
1.11	Alternative fuel sources.	4	2	2
1.12	Waste. Their processing.	3	2	1
1.13	Different types of environmental pollution.	3	2	1
1.14	Census.. Construction «Have something done».	3	2	1
1.15	Ukraine: Problems and Solutions.	4	2	2
1.16	Preparation of training projects	3	2	1
1.17	<i>Module test №1.</i>	4	2	2
<b>Total for Module №1</b>		<b>60</b>	<b>34</b>	<b>26</b>
<b>Total for the 3<sup>rd</sup> semester</b>		<b>60</b>	<b>34</b>	<b>26</b>
<b>4 semester</b>				
<b>Module № 2 “Microbiology”.</b>				
2.1	General Biology. Reported Speech. Reported statements..	4	2	2
2.2	Classification in Biology.	4	2	2
2.3	History of Biology. Reported questions.	3	2	1
2.4	Molecular Biology..	4	2	2
2.5	Cells. Tissues. Reported commands, requests.	4	2	2
2.6	Cytology. Embryology.	3	2	1
2.7	Microbes. Sequence of tenses.	3	2	1
2.8	Food.	4	2	2
2.9	Metabolism.	4	2	2
2.10	Biotechnology. Modal verbs for expressing abilities.	4	2	2



2.11	Biotechnological systems.	3	2	1
2.12	Biotechnology and food industry. Modal verbs for expressing requests, permission.	4	2	2
2.13	Medical application of biotechnology.	3	2	1
2.14	Modern biotechnology. Laboratory analysis. Modal verbs for expressing duty, necessity, prohibition.	3	2	1
2.15	Business and biotechnology novelties.	4	2	2
2.16	Preparation of training projects.	3	2	1
2.17	Module test №2.	3	2	1
<b>Total for Module №2</b>		<b>60</b>	<b>34</b>	<b>26</b>
<b>Total for the 4<sup>th</sup> semester</b>		<b>60</b>	<b>34</b>	<b>26</b>
<b>Total for the 2<sup>nd</sup> year</b>		<b>120</b>	<b>68</b>	<b>52</b>
<b>3 Year</b>				
<b>5 semester</b>				
<b>Module №3 “Biochemistry. Biophysics”</b>				
3.1	Related Science. Organic and Inorganic Chemistry.	4	2	2
3.2	Biochemistry. Infinitive functions in a sentence.	4	2	2
3.3	History of biochemistry.	3	2	1
3.4	Migration of chemical elements in the biosphere. Complex Object.	3	2	1
3.5	Biophysics.	4	2	2
3.6	History of biophysics. Complex Subject.	4	2	2
3.7	Physico-chemical methods of analysis	3	2	1
3.8	New perspectives on the development of biochemistry. Gerund.	3	2	1



3.9	Interconnection of biochemistry with other disciplines.	4	2	2
3.10	Interconnection of biophysics with other disciplines. Gerund and infinitive.	4	2	2
3.11	World achievements in biochemistry.	3	2	1
3.12	World achievements in biophysics. Participle I.	3	2	1
3.13	Ukraine's place in modern research in biochemistry and biophysics.	4	2	2
3.14	World Leaders in Biochemistry and Biophysics. Participle II.	3	2	1
3.15	Nobel laureates.	3	2	1
3.16	Preparation of training projects.	4	2	2
3.17	<i>Module test №3.</i>	4	2	2
<b>Total for Module №3</b>		<b>60</b>	<b>34</b>	<b>26</b>
<b>Total for the 5<sup>th</sup> semester</b>		<b>60</b>	<b>34</b>	<b>26</b>
<b>6 semester</b>				
<b>Module №4 “Genetic engineering, its application”</b>				
4.1	Genetic engineering, origin. Conditional sentences.	3	2	1
4.2	Genetic engineering and its practical application. The 1 <sup>st</sup> type of conditional sentences.	4	2	2
4.3	Stem cells.	3	2	1
4.4	Immunology. The 2 <sup>nd</sup> type of conditional sentences.	4	2	2
4.5	Immune system of man.	3	2	1
4.6	Virology. The 3 <sup>rd</sup> type of conditional sentences.	3	2	1



4.7	AIDS.	3	2	1
4.8	Genetically modified foods. Mixed type of conditional sentences.	4	2	2
4.9	GMOs and their effects on the human body.	4	2	2
4.10	Changing the DNA structure. Structures with “I wish”, “If only”.	3	2	1
4.11	Modern technologies of the food industry.	3	2	1
4.12	Agricultural technology. Structure “I wish I were”.	4	2	2
4.13	Modern legislation on the use of genetically modified organisms.	4	2	2
4.14	Healthy Lifestyle. Structure “I wish ... had been”.	4	2	2
4.15	Business and the environment. Production standards..	4	2	2
4.16	Prospects for the development of genetic engineering.	4	2	2
4.17	Module test №4.	3	2	1
<b>Total for Module №4</b>		<b>60</b>	<b>34</b>	<b>26</b>
<b>Total for the 6<sup>th</sup> semester</b>		<b>60</b>	<b>34</b>	<b>26</b>
<b>Total for 3<sup>rd</sup> year</b>		<b>120</b>	<b>68</b>	<b>52</b>
<b>Total for the Subject</b>		<b>240</b>	<b>136</b>	<b>104</b>

### 3. BASIC CONCEPTS OF GUIDANCE ON THE SUBJECT

#### 3.1. List of references

##### Basic literature

- 3.1.1. Davydova N., Nikitchenko I. English for Natural Sciences.– K.,2004 – 407 с.






- 3.1.2. Снопченко В.І. Biology. Biotechnology. Посібник. – К.:НАУ, 2004 – 100 с.
- 3.1.3. Снопченко В.І. Biosphere. Man and Environment. Посібник.– К.:НАУ, 2005 – 106 с.
- 3.1.4. Снопченко В.І., Чугуй В.О. Biochemistry. Biophysics. Посібник. К.:НАУ, 2008. – 110 с.
- 3.1.5. Снопченко В.І. Genetic Engineering. Посібник. К.:НАУ, 2009. – 104 с.

### 3.2. Additional Literature

- 3.2.1. Голіцинський Ю. Граматика. Збірник вправ. – К., 2004.
- 3.2.2. Коваленко О.О., Конопляник Л.М. Англійська мова: Метод. розробка для студентів 1 курсу всіх спеціальностей ІЕД. – К.: НАУ, 2003.
- 3.2.3. Учитесь читать литературу по специальности: Пособие по немецкому языку для студентов авиационных специальностей. Составители: Е.Н. Дубнова-Кольварская, А.М.Филимонов, Р.И. Котов и др. – М.: Высш. шк. 1986. – 112с.
- 3.2.4. Німецько-українсько-російський словник. Упорядники: Е.І.Лисенко, М.І.Корольова та ін. Київ, “Освіта” 2001. – 250с.
- 3.2.5. Романенко Е.Н., Ситникова А.В. Метод. указания и задания по грамматике для студ. 1-2 курсов всех специальностей. – К.: НАУ, 1996. – 40 с.
- 3.2.6. Німецька мова для студентів технічних спеціальностей. Навчальний посібник. Київ, Видавництво «НАУ-друк», 2009. – 104 с.
- 3.2.7. Коржавин А.В. Практический курс французского языка для технических вузов. М: Высш. школа, 2008. – 372 с.
- 3.2.8. Гак В.Г., Ганшина К.А. Новый французско-русский словарь. – М.: Русский язык-Медиа, 2008. – 1160 с.

### 3.2. List of basic guidance materials for the subject

№ пор.	Name	Index of Topics where guides are used	Amount
1	2	3	4
1.	Table of Using Present and Past Tenses.	1.4, 1.6, 2.4, 2.6, 2.7	2 copies

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2.	Table of words formation from verbs with affixes.	1.8, 1.9, 2.5	1 copy
3.	Audio Dialogues of Experts in the Area of Biotechnology.	2.3, 2.5, 2.7, 2.11	2 copies Soft copy

#### 4. RATING SYSTEM OF KNOWLEDGE AND SKILLS ASSESSMENT

4.1. Grading of different kinds of academic work performed by a student is done in accordance with Table 4.1.

Table 4.1

3–6 semester			
Module №1–4		Max Grade	
Kind of Academic Activities	Max Grade		
Text Reading and Translation (8 texts x 3 grades)	24 (total)		
Knowledge of Terms	3		
Text Retelling (4 texts x 5 grades)	20 (total)		
Article Translation and Retelling	5		
Discussion of the Topic	4		
Knowledge of Grammar (testing)	5		
Preparing a Presentation on the topic	7		
<i>A student is to gain not less than 41 grades to be allowed to write Module Test №1-4</i>			
Module Test №1-4	20		
<b>Total for Module №1–4</b>	<b>88</b>		
<b>Semester Graded Test</b>		<b>12</b>	
<b>Total Semester Grade</b>		<b>100</b>	

4.2. A student is considered to have passed the module if both his/her Current Module Grade and Module Test Grade are positive (see Table 4.2).

4.3. The grades a student has been given for different kinds of academic work are summed up and the result constituting a Current Module Grade is entered into the Module Grade Register.

Table 4.2

Correspondence between the Grades for different kinds of activities  
and the National Scale

Grades				Module Test grade	National Scale
Text Reading and Translation, Knowledge of Terms	Text Retelling, Article Translation and Retelling, Knowledge of Grammar (testing)	Discussion of the Topic	Preparing a Presentation on the topic		
3	5	4	7	18–20	Excellent
2,5	4	3	6	15–17	Good
2	3	2,5	4–5	12–14	Satisfactory
under 2	under 3	under 2,5	under 4	under 12	Bad

4.4. The sum of the Current Module Grade and the Module Test Grade is the Total Module Grade (Table 4.3) whose grades and the National Scale is entered into the Module Grade Register.

Table 4.3

Correspondence between the Total Module Grades and the National Scale

Module №1-4	National Scale
79-88	Excellent
66-78	Good
53-65	Satisfactory
under 53	Bad

4.5. The Semester Module Grade is calculated as the sum of the Total Module Grades. The correspondence between Semester Module Grade values and the National Scale is given in Table 4.4.

Table 4.4.

Table 4.5

Correspondence between the Semester Module Grades and the National Scale

Grades	National Scale
79-88	Excellent
66-78	Good
53-65	Satisfactory
under 53	Bad

Correspondence between the Graded Test Grades and the National Scale

Grades	National Scale
Graded test	
12	Excellent
10	Good
8	Satisfactory
-	–

4.6. The Semester Module Grade and the Graded Test Grades together make up a Total Semester Grade whose correspondence to the National Scale and the ECTS Scale is shown in Table 4.6.


Table 4.6

Correspondence of the Total Semester Grades to the National Scale and the ECTS System

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

4.7. The Total Semester Grade is entered into the Examination Register and into a student’s record book in grades, National Scale grades, and ECTS grades.

4.8. The Total Semester Grade is entered into a student’s record book, for example: **92/Ex/A**, **87/Good/B**, **79/Good/C**, **68/Sat/D**, **65/Sat./E**, etc.

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4.9. The Total Semester Grades of discipline are defined as the average arithmetic grade of the total semester grades in points (from the first to the sixth semesters for this subject) with its transfer into National Scale and ECTS Scale.

The indicated Total Semester Grade of the subject is entered in the Diploma Supplement.





(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	Дата внесення зміни	Дата введення зміни
	Зміненого	Заміненого	Нового	Анульованого			

(Ф 03.02 – 32)

### УЗГОДЖЕННЯ ЗМІН

	Підпис	Ініціали, прізвище	Посада	Дата
Розробник				
Узгоджено				
Узгоджено				
Узгоджено				