

MINISTRY OF EDUCATION AND SCIENCE OF UKRAINE  
National Aviation University  
**Educational and Research Humanities Institute**  
Foreign Languages and Applied Linguistics Department

APPROVED  
Acting Rector

“ ” \_\_\_\_\_ 2017



Quality Management System

## **SYLLABUS**

on

**“Foreign Language”**

Field of study: 15 “Automation and instrumentation”  
Speciality: 151 “Automation and computer-integrated technologies”  
Specialization: “Computer-integrated technological processes  
of production”

Year of Study – 1<sup>st</sup>

Semester – 1<sup>st</sup>, 2<sup>nd</sup>

Classroom Sessions – 68

Graded Test

– 1<sup>st</sup> semester

Self-study – 52


Examination

– 2<sup>nd</sup> semester

Total (hours/ ECTS credits) – 120/4

Index CB-14-151/16-1.4

**QMS NAU S 12.01.04–01-2017**

	Quality Management System. Syllabus on “Foreign Language”	Document Code	QMS NAU S 12.01.04 – 01-2017
		Page 2 of 9	

The Syllabus on “Foreign Language” is based on the educational and professional program and Bachelor Curriculum № CB-14-151/16 for Speciality 151“Automation and computer-integrated technologies” and Specialization “Computer-integrated technological processes of production” and correspondent normative documents.

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Discussed and approved by the Graduate Department for the Speciality 151“Automation and Computer-integrated Technologies” and Specialization “Computer-integrated Technological Processes of Production” – Department of Aviation Computer-integrated Complexes, 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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Director of ER HI

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Director of the Center  
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“ \_\_\_\_ ” \_\_\_\_\_ 2017.

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	Quality Management System. Syllabus on “Foreign Language”	Document Code	QMS NAU S 12.01.04 – 01-2017
		Page 3 of 9	

## 1. EXPLANATORY NOTES

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

Teaching English is of great importance in the higher educational system of Ukraine. Being directed on communication and linked with social and special subjects the subject “Foreign Language” makes significant contribution into the education of young people.

Learning profession-oriented foreign language is an integral part of students’ preparing for the transition from learning a foreign language as a subject to its practical use for the professional purpose. Practical skills in the foreign language enable students to be aware of world standards and literature in order to make the independent professional decision.

The objective of teaching “Foreign Language” is the formation of students’ professional language competence that will facilitate their effective functioning in the cultural diversity of educational and professional environment. The main purpose of studying “Foreign Language” by the students of the speciality 151 “Automation and computer-integrated technologies” is to obtain practical skills in the foreign language. These skills must be acquired on the basis of learning profession-oriented topics defined by this syllabus.

The tasks of mastering the subject are the following:

- to learn professional terminology and everyday English words;
- to be able to read and make oral/written translation of authentic scientific and technical texts on specialty;
- to understand recorded and live foreign speech;
- to be able to communicate within the learnt topic.


After studying the subject “Foreign Language” the student has to:

**Know:**

- basic professional terminology;
- main grammar and lexical features of translation of technical literature;
- main rules of handling scientific and technical literature;
- word-building morphemes and models, particularly in the area of terminology building;
- main grammar structures, correlation of their forms and meanings;
- linguistic clichés, typical for scientific and technical literature.

**Be able:**

- to read and comprehend the authentic literature, including literature on the specialty, to obtain the necessary information;
- to participate in discussion;
- to understand oral speech on the basis of the learnt material;

	Quality Management System. Syllabus on “Foreign Language”	Document Code	QMS NAU S 12.01.04 – 01-2017
		Page 4 of 9	

- to make reports on professional and social and political topics and the topics defined by this syllabus;
- to render information obtained while reading both in foreign and native languages (in oral and written forms);
- to analyze grammar structures and correlate their forms and their meanings while reading and translating texts.

The teaching material of the subject is structured in a modular manner and consists of two training modules, including:

- training **module №1 “Computers. Computers Processes. Input, Storage, and Output Devices”**

- training **module №2 “Users and Software. Data Processing and Data Application”**, which are logically complete, relatively independent, integral part of the curriculum, learning of which provides for the module test and the analysis of its implementation.

The subject “Foreign Language” is based on the knowledge of the following subjects: “Computer Technologies and Programming”, “Electronics and Circuit Technologies”, “Metrology, Technological Measurements and Devices”, “Technical Means of Automation”, “Software of modeling of civil aviation systems and others.

## 2. SUBJECT CONTENT

### 2.1. Module №1 “Computers. Computers Processes. Input, Storage, and Output Devices”

#### Topic 2.1.1. Fundamental concepts of Magnetism and Electricity

The term “electric current”, direct and alternating current. Properties of electric currents, Ohm’s Law. Conductors and insulators. N.Tesla and his inventions

#### Topic 2.1.2. Electric circuits, their types and applications

Types of the circuits. The electric circuit, its definition, functions, and components. Types of circuits. Series, parallel, complex circuits. Series circuits’ components

#### Topic 2.1.3. Types of computers

The term “computer”. Analogue, digital and hybrid computers

#### Topic 2.1.4. Types of computers

Characteristics of computers, computers’ application

#### Topic 2.1.5. Computers architecture


The definition of the term “computers architecture”, CPU and its components, RAM, video system, CD, peripherals, input/output devices

#### Topic 2.1.6. Hardware

The definition of the term “hardware”, PC’s structure

#### Topic 2.1.7. Hardware

The definition of the term “CPU”, history of CPUs, CPU’s structure, its function

	Quality Management System. Syllabus on “Foreign Language”	Document Code	QMS NAU S 12.01.04 – 01-2017
		Page 5 of 9	

### **Topic 2.1.8. Input devices**

The definition of the term “input device”, its function, graphics input devices, texts input devices

### **Topic 2.1.9. Input devices**

Sound input devices, pointing input devices, gaming input devices

### **Topic 2.1.10. Output devices**

The definition of the term “output device”, its function

### **Topic 2.1.11. Output devices**

Visual output devices, sound output devices

### **Topic 2.1.12. Computer’s internal memory**

The definition of the term “memory”, memory tasks and functions, units of computer memory

### **Topic 2.1.13. Computer’s internal memory**

Types of computer memory according to functionality (RAM, ROM and others) and according to purpose (clipboard, cash, temporary)

### **Topic 2.1.14. Storage removable devices**

The definition of the term “storage removable devices”, its functions, types according to physical concepts: punch, magnetic, optic, magneto-optic, electronic, semi-conductive

### **Topic 2.1.15. GUI**

The definition of the term “GUI”, GUI’s types, their advantages and disadvantages

## **2.2. Module № 2 “Users and Software. Data Processing and Data Application”**

### **Topic 2.2.1. Software**

The definition of the term “software”, system and application software

### **Topic 2.2.2. Operating system**

The definition of the term “operating system”, the relationship between OS and other elements of the computer, OS functions, evolution, types

### **Topic 2.2.3. Spreadsheets**

The definition of the term “spreadsheet”, the history and application

### **Topic 2.2.4. Internet**

Internet as a global network, its history, main concepts, protocols, services

### **Topic 2.2.5. Browsers**

The definition of the term “browser”, the way of working, the history of developing

### **Topic 2.2.6. Browsers**

The most popular browsers in the world

### **Topic 2.2.7. Searching engines**

The most popular searching engines in the world

### **Topic 2.2.8. Searching engines**

Specific searching engines. Nechnology



### **Topic 2.2.9. Data base**

History of data base development. DBMS. DBMS application

### **Topic 2.2.10. Data base**

Data base types. Data base languages

### **Topic 2.2.11. Computer graphics**

History of computer graphics development. Computer graphics application.  
Vector, raster and fractal graphics. Advantages and disadvantages

### **Topic 2.2.12. Computer graphics**

Vector, raster and fractal graphics. Their advantages and disadvantages

### **Topic 2.2.13. Computer presentation**

The definition of the term “computer presentation”. Types (slideshow and flowing) and their developing environment

### **Topic 2.2.14. Computer presentation**

The technical means of the computer presentation

### **Topic 2.2.15. Modern technologies in our life**

## **3. LIST OF REFERENCES**

### **3.1. Basic Literature**

3.1.1. Загнітко А.П., Данилюк І.Г. Великий сучасний англо-український словник. – Д.: ТОВ ВКФ „БАО”, 2006. -1008 с.

3.1.2. О. Шостак, Б. Бистрова, о. Сарсадських// «Professional English: Information Technology Language»: підручник / Шостак О.Г., Бистрова Б.В., Сарсадських О.В.. – К.: «Талком», 2014. – 374с.

3.1.3. Santiago Remacha Esteras. Infotech. English for computer users. Cambridge University Press. 2007 - 172p.

### **3.2. Additional Literature**

3.2.1. Немецко-русский словарь по авиации и космонавтике., М.: Рус.яз. ,1984.- 798с.

3.2.2. “Французко-русский словарь”.(51 000 слов). М.: “Русский язык”, 1974. Сост. Ганшина К.А.

3.2.3. Шостак О. Г., Кузнецов В. О., Любинецька О. О. Англійська мова для студентів технічних спеціальностей. Навч. посібник: у 2-х ч. – К.: Вид-во Європ.ун-ту., 2007. – Ч.1. – 221 с.

3.11.17





(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				
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QMS NAU S  
12.01.04 – 01-2017

Page 9 of 9