МІНІСТЕРСТВО ОСВІТИ ТА НАУКИ УКРАЇНИ

НАЦІОНАЛЬНИЙ ТЕХНІЧНИЙ УНІВЕРСИТЕТ „ХАРКІВСЬКИЙ ПОЛІТЕХНІЧНИЙ ІНСТИТУТ”

МЕТОДИЧНІ ВКАЗИВКИ ТА ЗАВДАННЯ ДО ПРАКТИЧНИХ ЗАНЯТЬ З АНГЛІЙСЬКОЇ МОВИ ДЛЯ СТУДЕНТІВ ІНЖЕНЕРНИХ СПЕЦІАЛЬНОСТЕЙ

Затверджено
редакційно-видавничею радою університету,
протокол №3 від 15.12.05.

Харків НТУ „ХПІ” 2006

Укладачі: С.А. Новік, О.І. Пономарьова, Н.В. Вітухіна

Рецензент: Н.В. Саєнко

Кафедра іноземних мов
ВСТУП

Методичні вказівки та завдання до практичних занять з англійської мови для студентів інженерних спеціальностей призначені для роботи на першому курсі всіх факультетів.

Матеріали містять 6 уроків, кожен з яких має передтекстові вправи, саме текст та післятекстові завдання. Передтекстові вправи мають за мету формування та розвиток лінгвістичної та мовної компетенцій студентів, введення та закріплення лексики.

Усі тексти базуються на автентичних джерелах, підібрані згідно з професійними та загальними інтересами молоді та ставлять за мету не лише розвиток навичок усіх видів читання текстів з першоджерел, але й залучення студентів до дискусій та створення діалогів та монологів за темами, що обговорюються у текстах, тобто сприяють формуванню та розвитку комунікативної компетенції студентів.

Виконання післятекстових завдань (imitation exercises, transformation exercises, substitution and creative exercises) дає можливість розвивати комунікативні та граматичні навички, навчитися висловлювати власну думку як в усній, так і в письмовій формах.

Методичні вказівки та завдання можуть бути використані для роботи як в аудиторії під керівництвом викладачів, так і для самостійної роботи студентів.
UNIT 1
ENGINEERING PROFESSION

BEFORE READING: Think over and discuss the following problems:
Why have you chosen the profession of an engineer?
Is engineering profession becoming more popular and respected nowadays?

Pre-text exercises:
I. Remember the pronunciation of the following words:
ancient
efficient
science
scientific
knowledge
require
research

II. Translate the following word combinations, use the dictionary if you are not sure of the meaning of some of them:
Ancient occupation; to erect buildings; to depend on observation and experience; to look for devices; to design and make equipment; creative ability; to combine the characteristics of the scientist, researcher and technologist.

III. Match the columns:

a) branch of engineering
b) irrigation system
c) structural materials
d) scientific knowledge

1) будівельні матеріали / строительные материалы;
2) наукові знання / научные знания;
3) зростання кількості / рост числа;
4) зрошувальні системи / оросительные
Engineering is one of the most ancient occupation in history. Starting from the very early times people worked with different structural materials, built irrigation systems and erected buildings. Those people were the ancestors of modern engineers.

Many of the early branches of engineering were based not on science but on empirical information that depended on observation and experience. Later people began to look for devices and methods of work that were more efficient. This led to the Industrial Revolution and to the development of scientific knowledge. The result of this development was the growth in the number of engineering specialities such as mechanical, chemical, electrical engineering and others.

Today engineers design and make machines, equipment and the like. Such work requires creative ability and knowledge of scientific principles. The engineer must also have an understanding of various processes and materials available to him. He should be prepared to work in the area of organization of manufacture, research and development, design, construction, sales and education.

In the XXI century the engineer must combine many of the characteristics of the scientist, research engineer and technologist. Like the researcher, the engineer asks “why?” Like the technologist, he is also concerned with “how?”. So his main function is to integrate the abstract-theoretical world and the technical-practical world.
Post-text exercises:

I. Find whether the statements given below are true or false, correct the false statements:

1. In the very early times people didn’t know how to work with structural materials and they built nothing.
2. In ancient times engineering was based on science and scientific knowledge.
3. The result of the Industrial Revolution was the growth in the number of engineering specialities.
4. Engineers today can apply their knowledge only in a very narrow sphere of industry.
5. In the XXI century engineering profession requires not only knowledge of scientific principles but also creative ability.

II. Put general and special questions to the following sentences:

1. Engineering is one of the most ancient occupation in history.
2. Even in the very early times people created buildings and built irrigation systems.
3. Today methods of work and devices are more efficient.
4. Engineers design and make machines and equipment.
5. The main function of an engineer is to integrate the abstract-theoretical world and the technical-practical world.

III. Put the verbs in brackets in the corresponding grammar and tense form:

1. This engineer (to work) in the field of organization of manufacture.
2. Scientists constantly (to look for) more efficient methods of work.
3. Lately the scientific contacts of our University (to expand).
4. I know she (to prepare) for a difficult experiment now.
5. They already (to do) this research work.
6. Modern technology (to develop) rapidly.
IV. Choose only one correct subject for each sentence:

1. (This student; our engineers; the technologist) work hard at this problem.
2. (My friend; my colleague, they) are designing a new instrument.
3. (She; our boss; I) have already completed the work.
4. For years (my friend; we; my schoolfriends) has dreamed of becoming a technical engineer.
5. (He; our colleagues; the researchers) is discussing the problem with the chief engineer.
6. (These plants; this plant; this factory) produce different structural materials.

V. Translate into English:

Инженерная деятельность – одно из самых древних занятий человека. Первоначально люди не имели достаточных научных знаний и опыта и опирались лишь на наблюдения за природой. Развитие науки привело к росту числа инженерных специальностей, поиску более эффективных методов работы. Инженеры стали проектировать и создавать новые машины и оборудование. Это требует от них творческих способностей и знания научных принципов. Современные инженеры должны быть готовы работать в различных отраслях производства, науки и образования.

ACTIVE VOCABULARY:

ancient ста́родавній / древний;
to erect споруджувати, буду́вати / воздвигать, строить;
ancestor предо́к / предок;
branch галузь / отрасль;
science наука / наука;
experience досвід / опыт;
device прилад / прибор, приспособление;
UNIT II
CHOOSING AN OCCUPATION

BEFORE READING: Think over and answer the questions:
What kind of job would you like to find and what are your real chances to get it?
Why do you think so?

Pre-text exercises:
I. Remember the pronunciation of the following words:
qualified
requirement
frequent
surroundings
earnings
environment
hazardous
employee
vary
III. Match the columns:

a) occupation 1) досвід роботи / опыт работы;
b) employee 2) вищий навчальний заклад / высшее учебное заведение;
c) employer 3) професійно-технічна освіта / профессионально-техническое образование;
d) vocational training 4) заробіток / заработок;
e) higher educational establishment 5) творчі здібності / творческие способности;
f) experience 6) професія, рід занять / профессия, род занятий;
g) physical stamina 7) працівник / работник;
h) career perspectives 8) роботодавець / работодатель;
i) earnings 9) робота з людьми / работа с людьми;
j) frequent public contacts 10) фізична витривалість / физическая выносливость;
k) problem-solving (creativity) 11) кар’єрне зростання / карьерный рост;

IV. Translate and try to memorize the following word combinations, use the dictionary if you are not sure of the meaning of some of them:

Choosing an occupation, skills necessary to do the job, education and training requirements, secondary school, junior college, to meet and deal easily with a lot of people, operate tools, to endure stress and strain on the job, work as a part of a team, work environment, work in dangerous surroundings, earnings within an occupation may vary.
In choosing an occupation you should decide on what kind of job you want and the kind you are qualified for.

Employers want to select employees who have or can learn the skills necessary to do the job. That’s why education and training requirements are the first to be mentioned. They may be divided into three levels:
- Secondary school (or less) – the basics of the job can be learned in a few months on the job training.
- Vocational training – post-secondary education such as junior college or many years of experience are required to be fully qualified.
- University degree – five or more years of a higher educational establishment are usually required.

It is also helpful to know as much as possible about job requirements the most common of them being:
- Leadership – the ability to stimulate others to think or act in a certain way. The skills include organising people and groups, supervising, directing, taking initiative, counselling, speechmaking, negotiating and meditating. Managers, workers supervisors are examples.
- Problem-solving (creativity) – the development of new ideas or programs, designs, inventing. Engineers who design machinery is an example of occupation that requires creativity.
- Frequent public contacts – ability to meet or deal with the public on a regular basis. For example, an office manager must meet and deal easily with a lot of different people.
- Manual dexterity – adept to make, build, fix and do things. Skills include operating tools, testing, drafting.
- Physical stamina – ability to endure stress and strain on the job, including heavy lifting, standing, or being uncomfortably confined for long periods.

The list may also include: helping (instructs), work as a part of a team, being dependable and others.

Knowing something about the work environment of the job is also important. Work environment may be:
- Hazardous – conditions that could present danger because of use of dangerous materials or working in dangerous surroundings where accidents are common.
- Outdoor – work in which major portion of time is spent outdoors, usually without regard to weather conditions.
- Generally confined – work which requires stayng in a specific place (office, shop, hospital, etc.) for most of the workday.

In most cases earnings and knowing one’s career perspectives, that is how fast you will advance, are the things to be considered. Earnings within an occupation may vary widely, but in general they are classed as of lower, middle and highest level. Career perspectives are connected with new job openings.

Post-text exercises:
I. Find whether the following statements are true or false, correct the false statements:
1. Earnings are never considered when choosing an occupation.
2. It is important to know about the work environment of the job.
3. At present education is not necessary for professors.
4. You should not only decide on what kind of job you want but the kind you are qualified for.
5. Hazardous conditions present danger because of working outdoors.
6. Leadership is the ability to make, build, fix and do things.
7. Vocational training is provided by junior colleges.

II. Think what words or phrases are used to define:

1) Level of education for which five or more years of a higher educational establishment are required __________
2) The skill including abilities to organise people and groups, to direct, to councel, to make speeches, to negotiate __________
3) The development of new ideas or programs, designs, inventing is called__________
4) The ability to meet or deal with the public on a regular basis __________
5) The ability to endure stress and strain on the job, including heavy lifting, standing, or being uncomfortably confined for long periods __________
6) Work conditions that could present danger __________
7) Work in which major portion of time is spent outdoors, usually without regard to weather conditions __________

III. Try to define job requirements for the following work and match the columns:

<table>
<thead>
<tr>
<th>Work</th>
<th>Job requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) landscape architect</td>
<td>1) leadership</td>
</tr>
<tr>
<td>b) miner</td>
<td>2) problem-solving (creativity)</td>
</tr>
<tr>
<td>c) dean of the faculty</td>
<td>3) frequent public contacts</td>
</tr>
<tr>
<td>d) accountant</td>
<td>4) manual dexterity</td>
</tr>
<tr>
<td>e) fashion designer</td>
<td>5) physical stamina</td>
</tr>
<tr>
<td>f) welder</td>
<td>6) helping (instructs)</td>
</tr>
<tr>
<td>g) salesworker</td>
<td>7) work as a part of a team</td>
</tr>
<tr>
<td>h) geologist</td>
<td>8) being dependable</td>
</tr>
<tr>
<td>i) engineer</td>
<td></td>
</tr>
<tr>
<td>j) ballet dancer</td>
<td></td>
</tr>
<tr>
<td>k) television announcer</td>
<td></td>
</tr>
<tr>
<td>a) bank director</td>
<td></td>
</tr>
<tr>
<td>b) pilot</td>
<td></td>
</tr>
<tr>
<td>c) system analyst</td>
<td></td>
</tr>
</tbody>
</table>

V. Answer the questions. Begin your answer with the phrase: “I think . . . “
What skills are necessary for the job of:
the engineer-technologist ?
the professor ?
the lawyer ?
the surgeon ?
the model ?
the minister ?
VI. Translate into English:

Работодатели отдают предпочтение работникам, у которых есть необходимые навыки. Вот почему предъявляются требования к образованию и стажу работы. Существуют 3 уровня образования: уровень средней школы (и ниже), среднее специальное образование и высшее образование. Также важно общие требования к профессии: организаторские или творческие способности, умение работать с людьми, «золотые руки», физическая выносливость, коллективизм, надежность. Условия работы разделяют на опасные, вне помещения, в помещении. Часто заработок и возможности карьерного роста также имеют значение при выборе профессии.

ACTIVE VOCABULARY

occupation

to be qualified for…
skill
vocational training
junior college
university degree
higher educational establishment
job requirement
leadership
supervise

профессия, рід занять / профессия, род занятий;
мати підготовку / иметь подготовку;
навичка / навык;
професійно-технічна підготовка /
профессійно-технічна підготовка;
професійно-технічний навчальний заклад /
професійно-технічній навчальний заклад / професійно-технічне учебное заведение;
вища освіта / высшее образование;
вищий навчальний заклад / высшее учебное заведение;
головна вимога до роботи / главное требование к работе;
організаторські здібності / организаторские способности;
слідкувати за роботою, контролювати / следить за работой, контролировать;
UNIT III
YOUNG PEOPLE TODAY

BEFORE READING: Think over and be ready to answer the following questions:

Is it easy today to be a young person?

What are the most serious problems you face in your everyday life?

Do you believe that the problems of young people are international?
Pre-text exercises:
I. Remember the pronunciation of the following words:
nurse
unfortunately
pressure
discussion
independence
society
famine
issue

II. Translate and try to memorize the following words and word combinations, use the dictionary if you are not sure of the meaning of some of them:
Spoilt person; to be objective in the discussion; to expect serious attitude and respect; to make life harder; to require more freedom and independence; to look and act like adults; to understand and tolerate the mistakes; to receive less care and time; cruelty to animals.

III. Match the columns:

| a) to be a teenager twice | 1) мати гарно оплачувану роботу / иметь хорошо оплачиваемую работу; |
| b) contradictory society | 2) очікувати з нетерпінням / ждать с нетерпением; |
| c) strong and supportive family | 3) відбитися від рук / отбиться от рук; |
| d) to drop out | 4) суперечливе суспільство / противоречивое общество; |
| e) according to the results | 5) бути молодою людиною двічі / быть молодым дважды; |
| f) to have a well-paid job | 6) відповідно до результатів / согласно результатам; |
| g) to look forward to | 7) сильна та надійна родина / прочная и надёжная семья; |
“Young people are so different these days. They seem to grow so fast. They are spoilt and have no problems. When we were young life was harder and we did better job of living it. “

Perhaps all of you heard such tirades from your parents, relatives and teachers more than once. But we can’t be objective in this discussion as no one is a teenager twice.

The young people of today do have problems. They become adults long before their parents did. They expect serious attitude and respect from people and require more freedom and independence. Sometimes it makes life harder because teenagers are not adults. Although they look and act like adults they don’t have enough experience and often make mistakes which people can’t understand or tolerate.

We live in a very contradictory and difficult society. It is so changed that parents have no idea of pressures put on the young people.

Unfortunately, the family is not such a strong and supportive unit as it was. This means that sometimes teenagers receive less care and time which leads to many teenagers dropping out, not working and not studying. Do we know well this young generation? What are their hopes for future?

According to the results of survey done with 16-18 year old British teenagers most of them want well-paid job, a cosy family life and good health. Most young men – 25 per cent – want to become managers or businessmen, while the same number of girls looked forward to being nurses or teachers. A total of 67 per cent of the youngsters expected to be married and with children by the age of 30. The survey also showed that cruelty to animals, education and famine were the issues young teenagers cared about.
Post-text exercises:
I. Choose the right ending for each statement:

1. Adults often say that young people today
   a) work harder than their parents did
   b) are spoilt and have no problems
   c) don’t differ from their parents
2. It is stated in the text that young people today
   a) don’t want to be independent
   b) don’t expect serious attitude and respect from people
   c) require more freedom and independence
3. Parents sometimes have no idea about their children’s problems because
   a) they are old
   b) the society is changed and contradictory
   c) adults don’t love their children
4. It’s clear from the text that many teenagers drop out because
   a) families are not strong and children receive less care
   b) the society doesn’t care about young people
   c) families have more than 10 children
5. According to the text most British teenagers
   a) are not going to work in future
   b) look forward to become military men
   c) want well-paid job, a cosy family life and good health

II. All the statements below are false, put the predicate in the corresponding negative form to make them true:

1. Our parents had easier life and they worked less than we work today.
2. In the discussion about young people adults are always objective.
3. In the last century parents always understood their children.
4. Elder generation knows teenagers quite well.
5. Young people want to stay dependent on their parents as long as possible.
6. Most teenagers in Britain will become lawyers and doctors in future.
III. Choose the right form of the verb given in brackets:

1. All parents hope they (can; could; will be able) to become friends to their children.
2. We (must; had to; have to) discuss the problems of AIDS at the last conference.
3. Young people (must; should; have to) understand elderly people and try to help them.
4. She (will be able; will have to; will be) to work to earn money for her one parent family.
5. Teenagers (can’t; must not; should not) come into contact with drugs, cigarettes and alcohol.
6. Most young people believe they (will have to; will be able to; will be) become wealthy people in future.

IV. Complete the sentences using information from the text:

1. Young people often make mistakes because__________
2. Sometimes adults are not objective because__________
3. Very often teenagers drop out, do not work and do not study because__________
4. Parents have no idea about pressures put on the young people because__________
5. Teenagers today require more freedom and independence because__________
6. Almost all young people want well-paid job, a cosy family life, good health and they care about such things as__________

V. Translate into English:

Взрослые люди часто говорят, что молодежь сегодня избалована и не имеет никаких проблем. Однако это не всегда объективно и справедливо. Современное общество очень изменилось, а молодежь сталкивается с новыми проблемами. Родителям порой трудно понять, какой груз лежит на плечах их детей, а подростки часто нетерпимы к старшим и совершают много
ошибок, так как не имеют опыта. Молодёжи хочется свободы и независимости, и поэтому они иногда отбиваются от рук, не хотят учиться и работать, пробуют наркотики и алкоголь. Однако согласно исследованиям большинство молодых людей хотят получить в будущем хорошо оплачиваемую работу, иметь крепкую семью и хорошее здоровье. Их также волнуют проблемы войны и мира, голода и жестокости к животным.

ACTIVE VOCABULARY

to spoil  балувати / баловать;
to grow  рости / расти;
tirade  тирада / тирада;
adults  дорослі / взрослые;
to expect  очікувати / ожидать;
atitude  ставлення / отношение;
to respect  поважати / уважать;
independence  незалежність / независимость;
experience  досвід / опыт;
to tolerate  терпіти, переносити / терпеть, выносить;
to care  турбуватися, піклуватися / заботиться, волноваться;
famine  голод / голод;
UNIT IV
AT THE OFFICE

BEFORE READING: Think over and answer the following questions:
Have you ever been to any office?
How do you think a usual office looks like?
What is in your opinion the main function of an office? Why do you think companies need offices?

Pre-text exercises:
I. Remember the pronunciation of the following words:
furniture
particular
employee
personnel
supply
schedule
entertain
stationery
headquarters

II. Match the columns:
a) photocopier 1) коректор / корректор;
b) shelves 2) письмовий стіл / письменный стол;
c) desk 3) полки / полки;
d) filing cabinet 4) корзина для паперів / корзина для бумаги;
e) plant 5) копіовальний папір / копировальная бумага;
f) word processor 6) ксерокс / ксерокс;
g) carbon paper 7) кімнатна рослина / комнатное растение;
h) clip 8) щоденник / ежедневник;
When we consider ‘the office’, we all have our own ideas about what it actually is, and we probably have a picture in our minds of one particular office in one particular organization. There are many variations of offices but it is always an essential co-ordinating and activity centre for any organization.

A company’s activities may be spread over different sites. A company’s most senior managers usually work in its head office or headquarters (HQ). Some managers have their own individual offices but most employees work in open-plan offices: large areas where many people work together. On the desks you can see computers, telephones and calculators and under the desks there are waste paper bins. Near the desks there are office swivel chairs and in the corners of the room you can find several filing cabinets.

The words employees, personnel, staff, workers or workforce can mean just the people carrying out the work of a company, rather than those leading it and organizing it: the management.
Usually employees have many duties. Their work isn’t just sorting out the mail, typing letters and filing documents. They also deal with the routine correspondence that the company receives, draft important letters and memoranda for the boss as well as organize his diary and work schedule.

A secretary is responsible for buying office supplies or stationery, taking telephone calls, handling travel and hotel bookings and entertaining visitors.

Offices give administrative support to the main function of the organization. They provide communication and support services and the skilled personnel to ensure effective operation and all organizations need ‘the office’ to maintain and store records, process information and pass it on to internal and external contacts.

Post-text exercises:

I. Answer the following questions:
1. Do all companies and organizations have the same variation of the office?
2. Where do senior managers of the company work?
3. What are the most common types of the offices?
4. What furniture can you find in the office?
5. What is the difference between personnel or workforce and management?
6. What duties do workers normally perform in the office?

II. Put the questions to the following sentences, start with the word in brackets:
1. Office is an essential co-ordinating and activity centre of the organization. (What_________?)
2. Most employees work in open-plan offices. (Where_________?)
3. Workers or staff carry out the work of the company and managers organize it. (Who_________?)
4. People can keep documents and routine correspondence in the filing cabinets. (Where_________?)
5. Top managers usually make their work schedules for every day and organize diaries. (What_________?)
6. Each organization needs skilled personnel to ensure its effective operation. (Why_________?)
III. Transform the sentences so that you could use the construction “there is/ there are”:

1. In every company we can find individual offices and open-plan offices.
2. We can see computers, telephones and calculators on the desks.
3. Swivel chairs are usually located near each desk.
4. Waste paper bin can be found in the corner of the office.
5. Filing cabinet is in the right corner of the room.
6. Several trays for papers and stationery are on the secretary’s desk.

IV. Use the words in the box to answer the question.

<table>
<thead>
<tr>
<th>file</th>
<th>diary</th>
<th>desk</th>
<th>folder</th>
<th>floppy disk</th>
<th>cupboard</th>
</tr>
</thead>
<tbody>
<tr>
<td>filing cabinet</td>
<td>in-tray</td>
<td>out-tray</td>
<td>keyboard</td>
<td>telephone</td>
<td></td>
</tr>
<tr>
<td>waste paper bin</td>
<td>safe</td>
<td>stapler</td>
<td>paper clip</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Which do you use to _______?
store records
stick notice on a board
hold papers together (two possible answers)
note down appointments
hold letters and memos that will soon be sent
type in information
keep money and valuable documents
throw things into which you no longer need
pass printed messages from one place to another

What do you use the other things for?
V. Imagine that you have come to a company to meet one of the managers. Use the phrases and information given below to find his/her room and make dialogues with the receptionist:

RECEPTIONIST: Your job is to greet visitors and find out who they wish to see. Use the following language:

Greetings:
Good morning/afternoon, can I help you?

Asking for information:
Can I have Your name, please?
Do you have an appointment?
I’ll just see if he/she’s available.
Then tell the visitor how to find the person/room.

VISITOR: Decide on the reason for your visit. Use the following language:

Greetings:
Good morning/afternoon

Giving information:
My name is........
I’ve come to see........
I’ve got an appointment with........
I’m from........

Then listen to the receptionist telling you how to find the person/room

Giving directions:
Take the lift/stairs........
It’s on the ground/first, etc. floor.
Go along the corridor.
Go (right) to the end of the corridor........
Go up/down the stairs........
Turn left/right...........
It’s on your left/right........
It’s the first door/room on your right.

**ACTIVE VOCABULARY**

stationery  канцтовари / канцтовары;
entertain  розважати / развлекать;
partial  окремий / отдельный;
essential  основний / основной;
spread  поширюватися / распространяться;
employee  службовець / служащий;
to store  зберігати / хранить;
routine  повсякденний / повседневный;
memorandum  пам’ятна записка / памятная записка;
to draft  накреслювати чорновик / набрасывать черновик;
to book  замовляти / заказывать;
to support  підтримувати / поддерживать;
skilled  кваліфікований / квалифицированный;
floppy disk  гнучкий диск / гибкий диск;
UNIT V
WHY DO WE LEARN FOREIGN LANGUAGES?

BEFORE READING: Think over and try to discuss the following problems:
Do you think that it’s really important nowadays to learn foreign languages?
Why?
Do you think it is possible to learn a foreign language perfectly?

Pre-text exercises:
I. Remember the pronunciation of the following words:

increase
language
success
circulation
equipment
influence
important
government

II. Translate and try to memorize the following word combinations, use the dictionary if you are not sure of the meaning of some of them:

Development and increase in international trade; modern Earth; world village; leading foreign language; the success of industry; the growth of exports; computer related equipment; the influence of pop-culture; social purposes.

III. Match the columns:

a) to get along with the progress 1) головна вимога / основное требование;
b) can’t do without..... 2) численні країни / многочисленные страны;
c) to become widely spoken 3) викликати зростання / вызвать рост;
WHY DO WE LEARN ENGLISH?

In the XXI century with the development of communication and increase in international trade modern Earth is getting smaller and is sometimes called a “world-village”. People of different countries and nations have to get along well with the progress in the world trade and technology as well as with each other. So, one can not do well without foreign languages.

In the course of the last hundred years English has become a number one world language.

In the year of 1600, in Shakespeare’s time, English was spoken only by 6 million people and was a ‘provincial’ language while French was the leading foreign language of that century. First English language became widely spoken in the world with the rise of British empire. Then success of American industry and the growth of exports in technologies caused increase in circulation of the language. The remarkable boom in computer-related equipment and technologies as well as the influence of British and American pop-culture resulted in that nowadays probably one billion people speak English. It has become one of the world’s most important languages in politics, science, trade and cultural relations. In number of speakers English is second only to Chinese. It is the official language of the United Kingdom of Great Britain and Northern Ireland, of the United States of America, Australia and New Zeland. In numerous countries in Africa, South America, in Canada, India, Pakistan people use English as an ‘official’ or ‘second’ language for government, business and education. Throughout the world many
people use English as an international language: some use it for social purposes, others for business and study.

For young people in Ukraine knowing foreign language or even two foreign languages is becoming more and more actual. For any professional no matter in what field he or she is going to work understanding and speaking English has already become one of the basic requirement in getting a good job. Besides, if you know a foreign language you can read papers, magazines, watch satellite TV programs and travel in different parts of the world. So, don’t waste your time, start right now and good luck to everyone.

Post-text exercises:
I. Choose the right ending for the sentences below:

1. In the XXI century people in different countries can not do without foreign languages because
   a) it’s dangerous for their lives
   b) they have to get along with the progress in the technology and trade
   c) it’s their must according to the Law

2. English language became widely spoken in the world
   a) in Shakespeare’s time
   b) with the rise of British empire
   c) last year

3. The fact that over a billion people today speak English is the result of
   a) people’s migration in the world
   b) disappearance of many languages
   c) the development of industry, computer and entertaining technologies in the USA

4. In number of speakers English is second to
   a) Ukranian
   b) Spanish
   c) Chinese

5. Throughout the world people use English
a) only in computer industry  
b) only in science  
c) for social purposes, for business, for study.

6. In Ukraine one of the basic requirement in getting a good job today is  
a) how you look  
b) your sports activity  
c) understanding and speaking English.

II. Make questions to the sentences, start with the word in brackets:

1. In the XXI century people call modern Earth “a world village”. (How_______?)
2. In the 17-th century French was the leading language in the world. (What________?)
3. The development of computer technologies influenced greatly the growth of interest to the English language. (What________?)
4. People started to use English widely in the XX-th century. (When________?)
5. In numerous countries of South America, Africa and others people use English as an ‘official’ or ‘second” language. (Where________?)
6. If you want to become a professional and an educated person you need to know at least one foreign language. (Why________?)

III. Put the predicate in the corresponding grammar form:

1. At the beginning of the last century about 300 million people (were speaking / spoke / have spoken) English.
2. Today English (became / is becoming / have become) the language of business and commerce.
3. Within one country people of different nations (are using / use / uses) English as a second language.
4. Lately, a number of students who really want to learn the language (increased / have increased / has increased).
5. Usually learners (not like / don’t like / doesn’t like) to use dictionary when they read for pleasure.
IY. Use the right degree of comparison to make the sentence true:

1. The USA and Great Britain are (larger / more large / the largest) countries where English is spoken as the official language.
2. (Most / much / more) people in the world speak Chinese than English.
3. English is the (more important / much more important / most important) language in politics, science, trade and cultural relations.
4. In the 17-th century English was (the least popular / less popular / more popular) in Europe than French.
5. Every year a number of European young people who start learning English is becoming (more high / highest / higher).

Y. Translate into English:

В настоящее время для любого профессионала стало очень важным знать хотя бы один иностранный язык. В XXI столетии наиболее популярным является английский язык. Людям во всем мире приходится идти в ногу с (успевать за) развитием новых технологий, науки и торговли и получать информацию из иностранных журналов и книг. Быстрое развитие новейших технологий в Америке, а также поп-культура этой страны повлияли на рост интереса к английскому языку во всём мире. Сегодня английский язык – это официальный язык политиков, бизнесменов и учёных. По количеству людей, говорящих на английском языке, он уступает лишь китайскому языку. Английский язык необходим и для учёбы, и для путешествий, и для общения с людьми в других странах.
ACTIVE VOCABULARY

to increase зростати / возрастать, расти;
success успіх / успех;
to cause бути причиною, викликати / быть причиной, вызывать;
growth зростання / рост;
influence вплив / влияние;
numerous численний / многочисленный;
government уряд / правительство;
remarkable значний / значительный;
to entertain розважати / развлекать;
requirement вимога / требование;
besides крім того / кроме того;
equipment обладнання / оборудование;

UNIT VI
COMPUTERS

Before reading: Think over and discuss the following problems:
Why are so many people still “computer illiterate?”
How many programs do you know to use?

Pre-text exercises:
I. Remember the pronunciation of the following words:

binary
cursor
program
data
storage
processing
digit
microchip

II. Match the columns:

a) hardware | 1) обчислювальна машина / вычислительная машина;
b) software | 2) включені у секунду / включений в секунду;
c) digital computer | 3) опрацювати / обрабатывать;
d) to process | 4) зберігання даних / хранение данных;
e) switches per second | 5) дискретний / дискретный;
f) binary digit | 6) пристрої виведення інформації /устройства вывода информации;
g) memory storage | 7) обладнання / оборудование;
h) discrete | 8) пристрої запровадження даних / устройства ввода данных;
i) output devices | 9) програмне забезпечення / программное обеспечение;
j) input devices | 10) двоїчна цифра, розряд / двоичная цифра, разряд;

II. Choose the word from the box to complete the sentences:

| spacebar, keyboard, mouse, hard disc, enter, delete |

Example: You don’t want your computer to get this. **a virus**

You press it when you want to put a space between words. __________
You press it when you want to move to the next line down. __________
In current usage the term “computer” usually refers to high-speed digital computers. These computers are playing an increasing role in all branches of the economy.

Digital computers are based on manipulating discrete binary digits (1s and 0s). They are able to recognize only two states in each of its millions of switches “on” and “off”. By assigning binary numbers to these states 1 for “on” and 0 for “off” and linking many switches together, a computer can represent any type of data from numbers to letters and musical notes. The real power of a computer depends on the speed with which it checks switches per second. The more switches a computer checks in each cycle, the more data it can recognize at one time and the faster it can operate, each switch being called a binary digit or bit.

A computer is a complex of four functionally different elements: 1) the central processing unit (CPU), 2) input devices, 3) memory-storage devices called disk drives, 4) output devices. These physical parts and all their physical components are called hardware.

The central processing unit is the heart of a computer. Sometimes the CPU consists of several linked microchips, each performing a separate task, but most computers require only a single microchip as the CPU.

Input devices let users enter commands, data or programs for processing by the CPU. Information typed at the computer keyboard, which is much like typewriter, is translated into a series of binary numbers the CPU can manipulate. The mouse is another widely used mechanical input device. To move the cursor on the display screen the user moves the mouse, selects operations and activates commands on the screen by pressing buttons on the top of the mouse.
The power of computers greatly depends on the characteristics of memory-storage devices. Most computers store data both integrally and externally. Output devices let the user see the results of the computer's data processing. Being the most commonly used output device, the monitor accepts video signals from a computer and shows different kinds of information such as texts, formulas and graphics on its screen. With the help of printers information stored in one of the computer's memory systems can be easily printed on paper in a desired number of copies.

Programs, also called software, are detailed sequences of instructions that direct the computer hardware to perform useful operations. Due to a computer's operating system hardware and software systems can work simultaneously. In large corporations software is often written by groups of experienced programmers, each person focusing on a specific aspect of the total project. For this reason, scientific and industrial software costs much more than the computers on which the programs run.

The Internet
The Internet/Net is a system connecting millions of computers worldwide. In order to get online (become connected) you must connect your computer to a phone line using a modem. You also need an Internet Service Provider (ISP). When you go online (use the Internet) you can browse (look at) different websites and download stuff from the Internet (move data from one computer to another).

Post-text exercises:
I. Find whether the statements are true or false, correct the false statements:

1. The result obtained by the computer programs greatly depends on the speed of the digital computer but not on the accuracy of the data used in the program.
2. The main element of any digital computer is known to be a microchip.
3. Digital computers are able to recognize hundreds of states in each of its millions of switches “on” or “off”.
4. Without software instructions hardware doesn’t know what to do.
5. The central processing unit is the heart of a computer.
6. Input devices let users store commands, data or programs for processing by the CPU.
7. The monitor is the most commonly used input device.

III. Put questions to the underlined words and make the sentences negative:

1. The basic job of the computer is the processing of information.
2. People create the computer software instructions.
3. Computer has no intelligence until software is loaded.
4. The user inputs data into computer to get information as an output.
5. The most common input device is a keyboard.

III. Use the right form of the verb:

1. ……(you / buy) the computer? Yes, I have.
2. A: …… (you / study) for tomorrow’s test on information technology? Yes, I have. I (spend) all yesterday afternoon studying.
   B: So, ………(you / learn) everything?
   A: I think so but I’m a bit nervous.
   B: Why are you nervous? You…… (always / be) good at information technology.
   A: Information technology? But I (think) it was a Physics test!

IV. Choose the right word in brackets and put it in the corresponding grammar and tense form:

1. - “I asked you to bring me the new Spice Girls CD. Have you (to bring, to take) it? - “I’m sorry, I’ve (to give, to take) it to Ann. She’s going (to bring, to take) it back tomorrow.”
2. Bill Gates and Paul Allen began to work together thirty years ago and have developed a version of the BASIC computer programming language for the first
personal computer (lately, recently). We’ve heard a lot about their work (lately, recently).

3. We spoke to them (lately, a short time ago).

4. He’s been to many countries (lately, recently), so he can tell us a lot about their (people, peoples).

5. There were so many (people, peoples) in the computer room that I couldn’t find my friend at once.

V. Translate into English:

Компьютеры играют все возрастающую роль во всех отраслях экономики. Цифровые компьютеры основаны на обработке дискретных двоичных чисел (1 и 0). Они способны распознавать только два состояния в каждом из миллиона включений “on” и “off”. Реальная вычислительная мощность компьютера зависит от скорости, с которой он фиксирует включения в секунду. Чем больше включений компьютер фиксирует за один цикл, тем больше данных он может распознавать одновременно и быстрее работать. Каждое включение называется двоичным разрядом (цифрой) или битом.

ACTIVE VOCABULARY

current
manipulate
recognize
assign
switches per second
central processing unit (CPU)
output devices

potочный / текущий, современный;
opрацьовувати / обрабатывать;
розпізнавати / распознавать;
надавати / назначать, присваивать;
включення (операції) у секунду / включения (операции) в секунду;
mікропроцесор / микропроцессор;
виходні пристрої відображення інформації / выходные устройства отображения информации;
<table>
<thead>
<tr>
<th>English</th>
<th>Ukrainian</th>
</tr>
</thead>
<tbody>
<tr>
<td>memory-storage devices</td>
<td>пристрої зберігання пам’яті / устройства хранения памяти;</td>
</tr>
<tr>
<td>user</td>
<td>користувач / пользователь;</td>
</tr>
<tr>
<td>button</td>
<td>клавіша / клавиша;</td>
</tr>
<tr>
<td>hard disk</td>
<td>жорсткий диск, „вінчестер” / жесткий диск, “винчестер”;</td>
</tr>
</tbody>
</table>
Список литературы


Навчальне видання

МЕТОДИЧНІ ВКАЗІВКИ ТА ЗАВДАННЯ
dо практичних занять з англійської мови
dля студентів інженерних спеціальностей

Англійською, українською та російською мовами

Укладачі: НОВІК Світлана Андріївна,
ПОНОМАРЬОВА Ольга Ігорівна,
ВІТУХІНА Ніна Василівна

Роботу до видання рекомендувала Л.В. Скрипніченко

Редактор М.П.Єфремова

План 2005, поз 36 /

Підписано до друку Рiso-друк. Обл.–вид. аrk. 2,4. Формат 60×84 1/16. Гарнітура Times Наклад 50 прим. Зам. № Папір офсетний. Ум. друк. аrk. 1,9 Ціна договірна.

Видавничий центр НТУ “ХПІ”,
61002, Харків, вул. Фрунзе, 21

Друкарня НТУ “ХПІ”, 61002, Харків, вул. Фрунзе, 21