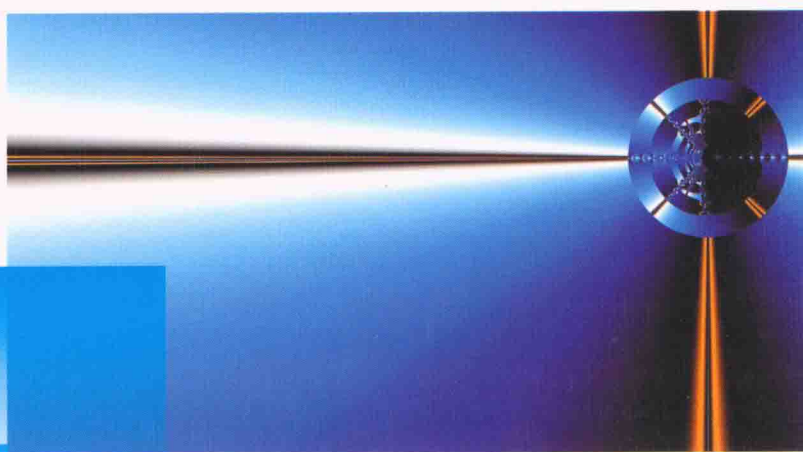
21世纪高职高专规划教材

计算机

计算机英语

JISUANJI YINGYU

张佰慧　赵 敏　主编



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前　言

为符合高职教育的水准，本着厚基础、重能力、求创新的总体思路，遵循实用、够用的原则，本书在编写时打破了以知识传授为主要特征的传统学科课程模式，转变为以工作任务为核心的项目课程模式，按项目课程的理念来整合教材的内容。因此，本书编写力求体现教材内容的组织体系与职教计算机专业学生技能结构的有机结合。本书将专业英语的内容与实际的 IT 职业岗位技能、任务和项目紧密结合以培养学生的专业英语能力。读者通过在计算机技能的实践中掌握专业英语能力，透彻理解，深刻记忆，强化专业英语的应用技能。

从职业岗位技能组成结构的角度来分析，专业英语技能本身就是计算机应用技能的一个重要组成部分。本书将计算机技能模块与专业英语应用有机地结合在一起，力求实现专业英语学习与岗位技能学习的零距离，是中等职业学校培养技能型、应用型和操作型复合人才的教材与参考书，是 IT 技术教育与市场职业资格认证的培训用书，是中等职业学校学生提升职业技能、增强就业竞争力、通过计算机技能认证及英语等级考试的教学与自学教程。

全书共分为 14 个单元。具体内容包括计算机基础知识、计算机硬件、计算机软件、数据库技术、计算机编程、软件工程、计算机网络、多媒体技术、计算机相关行业工作场景及软件外包等。书中节选的材料，不仅涵盖了计算机领域的基础知识，反映 IT 技术最新的发展方向，还增加了 IT 工作环境和软件外包等特色内容。

本书由平顶山工业职业技术学院张佰慧、赵敏担任主编。具体编写分工为：第 1、9、10 章由张佰慧编写；第 6、7、8 章由赵敏编写；第 13、14 章由平顶山工业职业技术学院樊建文编写；第 2、3 章由河南城建学院张妍琰编写；第 5、11 章由河南城建学院杨盛苑编写；第 4、12 章由河南质量工程职业学院王宛平编写。为了方便教师教学工作，本书附有全套电子课件。

由于时间仓促，加之水平有限，书中难免会有不足之处，敬请专家和读者批评指正。

编　者

2011 年 4 月

Contents

UNIT 1 Computer

Task 1 Text

How old is the word "computer"? The word "computer" has been part of the English language since 1946, but if you look in a dictionary printed before 1940, you might be surprised to find a computer defined as a person who performs calculations! Prior to 1940, machines designed to perform calculations were referred to as calculators and tabulators, not computers. The modern definition and use of the term "computer" emerged in the 1940s, when the first electronic computing devices were developed.

What is a computer? Computers are electronic devices that can follow instructions to accept input, process that input, and produce information.

There are four types of computers: supercomputers, mainframe computers, minicomputers, and microcomputers.

Supercomputers are the most powerful type of computer. These machines are special high- capacity computers used by very large organizations. For example, NASA uses supercomputers to track and control space explorations.

Mainframe computers occupy specially wired, air-conditioned rooms. Although not nearly as powerful as supercomputers, mainframe computers are capable of great processing speeds and data storage. For example, insurance companies use mainframes to process information about millions of policyholders.

Minicomputers, also known as midrange computers, are refrigerator-sized machines. Medium-sized companies or departments of large companies typically use them for specific purposes. For example, production departments use minicomputers to monitor certain manufacturing processes and assembly line operations.

Microcomputers are most widely used type of computer. In 1971, the first microcomputer appeared. A microcomputer could be clearly differentiated from computers in other categories because its CPU consisted of a single "chip" called a microprocessor. What is a personal computer (PC) ? A personal computer is a type of microcomputer designed to meet the computing needs of an individual. It typically provides access to a wide variety of computing applications, such as word processing, photo editing, e-mail, and Internet access. Personal computers are available as desktop computers, notebook computers, or tablet computers.

When you think of a microcomputer, perhaps you think of just the equipment itself. That is, you think of the monitor or the keyboard. Yet, there is more to it. The way to think about a microcomputer is as part of an information system. An information system has five parts: people, procedures, software, hardware, and data.

• People: It is also called end users like you.

• Procedures: The rules or guidelines for people to follow when using software, hardware, and data are procedures. These procedures are typically documented in manuals written by computer specialists. Software and hardware manufacturers provide manuals with their products. These manuals are provided either in printed or electronic form.

• Software: A program consists of the step-by-step instructions that tell the computer how to do its work. Software is another name for a program or programs. The purpose of software is to convert data (unprocessed facts) into information (processed facts) .

• Hardware: The equipment that processes the data to creat information is called hardware. It includes the keyboard, mouse and other devices. Hardware is controlled by software.

• Data: The raw, unprocessed facts, including text, numbers, images, and sounds are called data. Processed data yields information.

Twenty years ago, most people had little to do with computers, at least directly. Today, microcomputers came along and changed everything. It is easy for nearly everybody to use a computer. Now:

Microcomputers are common tools in all areas of life. Writers write, artists draw, engineers and scientists calculate—all on microcomputers. Students and businesspeople do all this, and more.

New forms of learning have developed. People who are homebound, who work odd hours, or who travel frequently may take courses on the Web. A college course need not fit within the usual time of a quarter or a semester.

New ways to communicate, to find people with similar interests, and to buy goods are available. All kinds of people are using electronic mail, electronic commerce, and the Internet to meet and share ideas and products.

What about you? How are you using information technology (IT) ? Many interesting and practical uses have recently surfaced to make our personal lives richer and more entertaining. These applications range from recording digital video clips to creating personalized Web sites.

Task 2 Words

calculation [ˌkælkju'leiʃn]	n. 计算，计算结果
perform [pə'fɔ:m]	v. 执行
computer [kəm'pju:tə]	n. 计算机
tabulator ['tæbjuleitə]	n. 制表人
electronic [ilek'trɔnik]	adj. 电子的

device [di'vais]	n. 设备
instruction [in'strʌkʃən]	n. 指令
input ['input]	v./n. 输入
process [prə'ses]	v. 处理
information [ˌinfə'meiʃn]	n. 信息
supercomputer [ˌsju:pə'kəmpju:tə]	n. 超级计算机，巨型计算机
minicomputer [ˌminikəm'pju:tə]	n. 小型计算机
microcomputer [ˌmaikrəukəm'pju:tə]	n. 微型计算机
capacity [kə'pæsiti]	n. 容量，能力
monitor ['mɔnitə]	v. /n. 监控；显示器
manufacturing [ˌmænju'fæktʃəriŋ]	n. /adj. 制造业；制造的
storage ['stɔ:ridʒ]	n. 存储，存储器
assembly [ə'sembli]	n. 组合，装配
chip [tʃip]	n. 芯片
microprocessor ['maikrəuprəusesə]	n. 微处理器
access ['ækses]	v. /n. 存取，访问
edit ['edit]	v. 编辑
keyboard ['ki:bɔ:d]	n.键盘
system ['sistəm]	n. 系统
manual ['mænjuəl]	n. 手册
document ['dɔkjumənt]	n. 文档
procedure [prə'si:dʒə]	n. 程序，过程
software ['sɔftwɛə]	n. 软件
hardware ['hɑ:dwɛə]	n. 硬件
data ['deitə]	n. 数据
image ['imidʒ]	n. 图像
program ['prəugræm]	n. 程序
convert [kən'və:t]	v. 转换
text [tekst]	n. 文本
communicate [kə'mju:nikeit]	v. 交流，通信
video ['vidiəu]	n. 视频
record [ri'kɔ:d]	v. 记录；录音
digital ['didʒitl]	adj. 数字的，数码

Task 3 Specialty Phrase and Abbreviation

PC: Personal Computer	个人计算机

IT: Information Technology	信息技术
electronic device	电子设备
mainframe computer	大型计算机
data storage	数据存储
specific purpose	专用的
midrange computer	中型计算机
word processing	文字处理
photo editing	图片编辑
desktop computer	台式计算机
notebook computer	笔记本式计算机
information system	信息系统
tablet computer	平板计算机
electronic mail	电子邮件
electronic commerce	电子商务
web site	网站

Task 4 Grammer

构词法 —— 增义法

计算机英语最突出的一个特点就是：专用词汇并不是很多。但是专业英语的关键（最难突破的问题）即是专业单词，掌握它是提高阅读能力和水平的基础和关键。计算机英语在学习单词和语法时比普通英语更容易，但应注重掌握技巧。在单词的学习过程中，学习构词法是掌握计算机英语词汇的关键之一。

目前，计算机已经成为我们日常工作、生活和学习密不可分的一部分。虽然计算机属于新兴学科，但计算机中的大量专业术语都来源于日常英语词汇，既取其原有含义，又被计算机领域赋予类似功能的专有词义。给普通的词汇以计算机科学的含义，于是普通词汇有了新释义，被赋予了新义。由于其拼写不变，又以旧义为基础扩充了新义，所以便于人们识记，使用也更容易。如

mouse 老鼠→鼠标	terminal 末端→终端
printer 印刷工→打印机	disk 圆盘→磁盘
new 新的→新建（文档)	surfer 冲浪者→上网者
label 标签→卷标	sector 扇形→扇区
virus 病毒→计算机病毒	memory 记忆→存储器
bridge 桥→网桥	windows 窗户→视窗
package 包裹→软件包	explorer 探索者→浏览器
instruction 命令→指令	code 编码→代码
program 程式→程序	address 地址→内存地址

这类词在计算机英语词汇中数量很多，因此，在某种意义上，学习计算机英语，其词汇应该不是“记忆”，而是“转义”的问题。大部分单词是熟悉的，只需要在学习过程中，将它对应用到计算机专业课程中已经熟知的专有词义中就可以了。但是只有既具备丰富的计算机知识，又精通英语中的构词法知识，才能根据上下文的意思，很快地猜出文章中生词的含义，从而提高阅读的速度和水平。计算机专业的同学在对计算机专业知识学习的同时，会有意无意摄取到大量的计算机专业词汇、术语。他们在阅读计算机英语文章时，会发现很多熟悉的单词，一些单词和用法也可以根据经验推断出大意。但计算机专业的同学还应多补充自己在计算机专业知识方面的不足，在计算机专业英语的学习过程中，你会发现，很多熟悉的单词不能猜出意思，恰恰是因为计算机专业知识的不牢固。只有同时具备了基础英语和计算机专业知识，才能在文章中将单词进行准确地“转义”。

Task 5 Practices

Ⅰ. Fill in the blanks with the correct answers.

1. _____are the most powerful type of computer. These machines are special high-capacity computers used by very large organizations.

A. Supercomputers B. Mainframe computers

C. Minicomputers D. Microcomputers

2. _____are the most widely used type of computer.

A. Supercomputers B. Mainframe computers

C. Minicomputers D. Microcomputers

3. A personal computer is a type of_____designed to meet the computing needs of an individual.

A. supercomputers B. mainframe computers

C. minicomputers D. microcomputers

4. Computers manipulate data in many ways, and this manipulation is called_____.

A. running B. processing

C. performing D. handling

5. The series of instructions that tell a computer how to carry out processing tasks is referred to as a computer_____.

A. hardware B. software

C. program D. device

6. According to the text, an information system has five parts: _____, procedures, software, hardware and data.

A. people B. program

C. information D. Internet

7. A_____computer is another name for a notebook computer.

A. midrange B. handheld

C. laptop D. DVD

8. _____is how much data a particular storage medium can hold.

A. Capacity B. Bit

C. Byte D. KB

9. _____is the recent wireless technology that allows nearby devices to communicate without the connection of cables or telephone system.

A. Laser B. Headphone

C. Bluetooth D. Infrared

10. _____is a tiny circuit board etched on a small square of sandlike material called silicon.

A. Chip B. COMS

C. BIOS D. Mainboard

Ⅱ. Fill in the blanks.

1. _____are electronic devices that can follow instructions to accept input, process that input, and produce information.

2. There are four types of computers: supercomputers, _____, minicomputers, and microcomputers.

3. An information system has five parts: people, procedures, _____ , hardware, and_____.

4. _____is another name for a program or programs.

5. A _____computer fits on a desk and runs on power from an electrical wall outlet.

Ⅲ. Match each numbered item with the most closely related lettered item.

a. computer	1. 超级计算机
b. device	2. 芯片
c. information	3. 信息
d. supercomputer	4. 微处理器
e. microcomputer	5. 设备
f. chip	6. 计算机
g. microprocessor	7. 微型计算机
h. capacity	8. 文本
i. text	9. 容量
j. data	10. 数据

Ⅳ. Translate the following phrases into Chinese.

1. PC: _____ 2. IT: _____

3. MPC: _____ 4. PDA: _____

5. POST: _____ 6. VLSI: _____

7. DIY: _____ 8. DTE: _____

9. ENIAC: _____

10. palmtop computer: _____

11. electronic device : _____

12. data storage : _____

13. notebook computer : _____

14. information system : _____

15. desktop computer : _____

Ⅴ. Translate the following sentences into Chinese.

1. The modern definition and use of the term "computer" emerged in the 1940s, when the first electronic computing devices were developed.

_____

_____

2. Microcomputers are common tools in all areas of life. Writers write, artists draw, engineers and scientists calculate—all on microcomputers.

_____

_____

3. Personal computers are available as desktop computers, notebook computers, or tablet computers.

_____

_____

4. A tablet computer is similar in size to a notebook computer, but features a touch-sensitive screen that can be used for input instead of a keyboard.

_____

_____

5. A notebook computer (also referred to as a "laptop") is a small, lightweight personal computer that incorporates screen, keyboard, storage, and processing components into a single portable unit.

_____

_____

Expanding Your Knowledge

The Evolution of the Computer Age

The Computer Age did not really begin until the first computer was made available to the public in

1951. The modern age of computers thus spans slightly more than 50 years, which is typically broken down into five generations. Each generation has been marked by a significant advance in technology.

First Generation (1951-1957) : During the first generation, computers were built with vacuum tubes —electronic tubes that were made of glass and were about the size of light bulbs.

Second Generation (1958-1963) : This generation began with the first computers built with transistors — small devices that transfer electronic signals across a resistor. Because transistors are much smaller, use less power, and creat less heat than vacuum tubes, the new computers were faster, smaller, and more reliable than the first-generation machines.

Third Generation (1964-1969) : In 1964, computer manufacturers began replacing transistors with integrated circuits. An integrated circuit (IC) is a complete electronic circuit on a small chip made of silicon. These computers were more reliable and compact than computers made with transistors, and cost less to manufacture.

Fourth Generation (1970-1990) : Many key advances were made during this generation, the most significant being the microprocessor —a specialized chip developed for computer memory and logic. Use of a single chip to creat a smaller "personal" computer revolutionized the computer industry.

Fifth Generation (1991-2005 and beyond) : Our current generation has been referred to as the "Connected Generation" because of the industry's massive effort to increase the connectivity of computers. The rapidly expanding Internet, World Wide Web, and intranets have created an information superhighway that enabled both computer professionals and home computer users to communicate with others across the globe.

How to Buy Your Computer System

STEP 1 What needs do I want a computer to serve?

The trick is to distinguish between your needs and your wants. Sure, you want a cutting-edge system powerful enough to hold every conceivable program you'll ever need. And you want a system fast enough to process them all at the speed of light. But do you need this? Your main concern is to address the two-part question:

1. What do I need a computer system to do for me today?
2. What will I need it to do for me in another year or two?

Suggestions:

The first thing to establish is whether you need a computer at all. Some colleges offer computer facilities at the library or in some dormitories. Or perhaps you can borrow a roommate's. The problem, however, is that when you are up against a term-paper deadline, many others may also be. Then the machine you want may not be available. To determine the availability of campus computers and network support, call the computer center or the dean of students'office.

Another matter on which you might want advice is what type of computer is popular on campus.

Some schools prefer Apple Macintoshes, others prefer IBMs or IBM-compatibles. If you own a system that's incompatible with most others on campus, you may be stuck if your computer breaks down. Ask someone knowledgeable, who is a year or two ahead of you, if your school favors one system over another.

Finally, look ahead and determine whether your major requires a computer. Business and engineering students may find it a necessity, while physical education and drama majors may not. Your major may also determine the kind of computer that's best. A journalism major may want an IBM or IBM-compatible notebook that can be set up anywhere. An architecture major may want a powerful desktop Macintosh with a laser printer that can produce elaborate drawings.

STEP 2 How much should I spend on a computer system?

When you buy your first computer, you are not necessarily buying your last. Thus, you can think about spending just the bare-bones amount for a system that meets your needs while in college. Then you might plan to get another system later on. You know what kind of money you have to spend. Your main concern is to answer this two-part questions.

1. How much am I prepared to spend on a computer system today?
2. How much am I prepared to spend in another year or two?

Suggestions:

You can probably buy a good second-hand computer of some sort for under $300 and a printer for under $50. On the other hand, you might spend $1, 000 to $2, 500 on a new state-of-the-art system. When upgraded , this computer could meet your needs for the next five years.

There is nothing wrong with getting a used system, if you have a way of checking it out. For a reasonable fee, a computer-repair shop can examine it prior to your purchase. Look at newspaper ads and notices on campus bulletin boards for good buys on used equipment. Also try the Internet.

STEP 3 What kind of software will best serve my needs?

Most computer experts urge that you determine what software you need before you buy the hardware. The reasoning here is that some hardware simply won't run the software that is important to you. This is certainly true once you get into sophisticated software. Examples include specialized programs available for certain professions. However, if all you are interested in today are the basic tools of software—word processing, spreadsheet, and communications programs—these are available for nearly all microcomputers. The main caution is that some more recent versions of application software won't run on older hardware. Still, if someone offers you a free computer, don't say no because you feel you have to decide what software you need first. You will no doubt find it sufficient for many general purposes, especially during your early years in college.

Suggestions:

No doubt some kinds of application software are more popular on your campus—and in certain departments on your campus—than others. Are freshman and sophomore students mainly writing their term papers in Word, WordPerfect, or Word Pro? Which spreadsheet is most often used by business students: Excel, Lotus 1-2-3, or Quattro Pro? Which desktop publishing program is most favored by graphic arts majors: PageMaker, Ventura Publisher, or Freehand? Do many students use their

microcomputers to access the Internet, and if so, which communications software is the favorite? Do engineering and architecture majors use their own machines for CAD/CAM applications? Start by asking other students and your academic advisor.

STEP 4 What kind of hardware will best serve my needs?

A bare-bones hardware system might include a three-year-old desktop or notebook computer with a 3-inch floppy disk drive and a hard-disk drive. It should also include a monitor and a printer. With a newer system, the sky is the limit. On the one hand, as a student—unless you're involved in some very specialized activities—it's doubtful you'll really need such things as voice-input devices, touch screens, scanners, and the like. On the other hand, you will probably need speakers and a CD-ROM or DVD-ROM drive. The choices of equipment are vast.

Suggestions:

Clearly, you should let the software be your guide in determining your choice of hardware. Perhaps you've found that the most popular software in your department runs on a Macintosh rather than an IBM-compatible. If so, that would seem to determine your general brand of hardware.

Whether you buy IBM or Macintosh, a desktop or a notebook, we suggest you get 3-inch floppy disk drive, a hard-disk drive with at least 2 gigabytes of storage, a DVD-ROM drive, at least 128 megabytes of memory, and an ink-jet printer.