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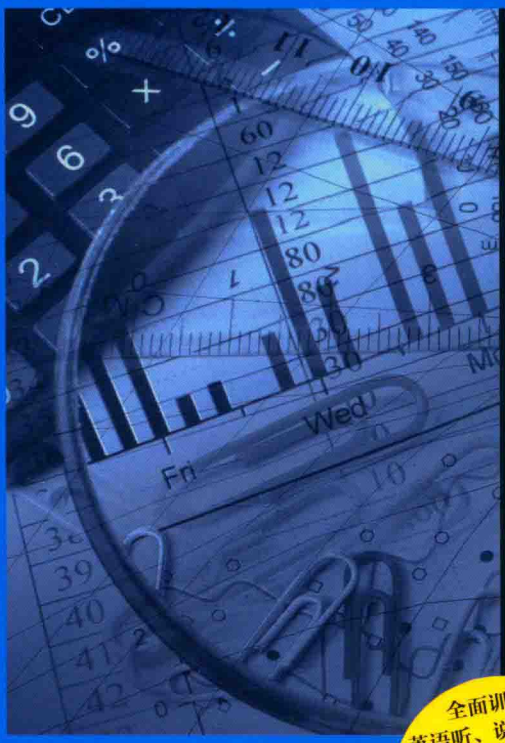

计算机专业英语

吕云翔 / 主编

全面训练英语听、说、读、写、译能力

巧妙设计场景式教学和体验式学习方式

COMPUTER PROFESSIONAL ENGLISH

中国工信出版集团

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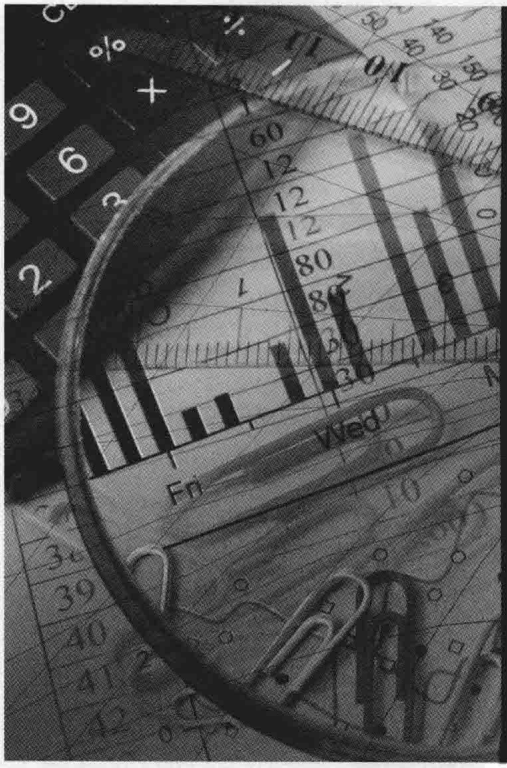
NEW 新视角职业英语

PERSPECTIVE 立体化规划教材

VOCATIONAL ENGLISH



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吕云翔／主编

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内 容 提 要

本书是按照计算机专业英语课程的要求，以 3 位大学生 Mark、Henry 和 Sophie 的学习生活为主要背景，围绕各章主题展开他们交流的话题，并在对话中丰富各章主题，将全书内容巧妙地联系在一起。本书涉及云计算、3D 打印、穿戴式技术、大数据、物联网、移动互联网、社交网站和 O2O 等相关知识。

本书注重听、说、读、写、译能力的全面发展，既可作为高等院校计算机和软件工程及其相关专业的教学用书，也可作为各类相关职业信息技术学院和专业培训机构等教学使用。

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前言

本书选材广泛，内容丰富。全书共10个单元，分别从计算机和移动设备、硬件、软件、操作系统、计算机编程、数据库、计算机网络和因特网、因特网和万维网、电子商务、计算机安全和隐私等方面全面介绍和讲解深刻影响着我们生活的信息技术，内容既包含新的科研成果、业界前沿课题和发展趋势，又有计算机文化典故和名人轶事。

本书在对话场景的编排上以3位大学生Mark、Henry和Sophie的学习生活为主要背景，围绕各章主题展开他们交流的话题，并在对话中丰富各章主题，将全书内容巧妙地联系在一起。

本书信息容量大，知识性强，注重英语的听、说、读、写、译能力的全面培养和实际应用。各章内容均分为听与说、阅读与翻译、模拟写作3大部分。其中，听与说部分是与各章主题相关的专题讨论，将计算机的相关知识与实际的场景对话相结合，旨在综合训练读者的听说能力，并在对话中掌握计算机的相关知识。阅读能够全面丰富地论述本章主题，使读者深入了解和掌握相关的计算机专业知识，介绍计算机领域的新技术进展，供读者开阔视野；翻译部分结合阅读部分的文章，将其中涉及的复杂句型和特殊句型或涉及计算机相关的重要知识点的句子摘录出来，并且在练习中还有额外的翻译练习，以帮助读者巩固计算机和英语的专业知识。模拟写作部分讲解IT常用文体写作方法，且在方法指导的基础上辅以实例。

本书采用场景式教学和体验式学习相结合的方式，教材中设计的听力、口语、阅读与翻译和模拟写作练习融合了角色扮演、多人会话和小组讨论等行之有效的训练方法，能较好地满足课堂教学的需要。

另外，本书有配套的MP3听力材料，可为学生提供非常有价值的短文和口语模板。配套的MP3听力材料、教学PPT、习题参考答案和阅读文章等部分的翻译可以在网站上的本书网页中免费注册下载（www.ryjiaoyu.com.cn）。

本书的教学安排建议如下。

章节	内容	学时数
Unit 1	Computers and Mobile Devices	4
Unit 2	Hardware	3-5
Unit 3	Software	3-5
Unit 4	Operating Systems	3-5
Unit 5	Computer Programming	3-5
Unit 6	Databases	3-5
Unit 7	Computer Network and Internet	3–5

续上表

章节	内容	学时数
Unit 8	The Internet and World Wide Web	3–5
Unit 9	Ecommerce	3–5
Unit 10	Computer Security and Privacy	4

建议理论教学时数：32–48 学时。

教师可以按照自己对计算机英语的理解适当地增减一些章节，也可以根据教学目标，灵活地调整章节的顺序，增减各章的学时数。

理论授课学时数 32–48 学时包含课堂讨论、练习等必要的课内教学环节。建议授课时间比例为：听与说部分 40%，阅读与翻译部分 40%，模拟写作部分 20%。

本书在编写的过程中得到了美国 Auburn 大学的 Yvonne Williams 女士的指导，以及曾洪立女士的大力支持，在此表示衷心的感谢。

由于作者能力有限，书中难免有不足之处，望读者给予批评指正（yunxianglu@hotmail.com）。

编者

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Unit One

Computers and Mobile Devices

Part 1 Listening and Speaking

Dialogue: Buying a New Notebook Computer

(*After class, Sophie & Henry are standing by the door, waiting for Mark.*)

Henry: Excuse me, Sophie. May I ask you some questions about computers?

Sophie: Sure. What can I do for you?

Henry: I want to buy a new **notebook computer**, but I'm not sure which kind is better, the traditional notebook or **ultrabook**. What do you think? [1]

Sophie: Let me see. In my view, although these two categories of notebook computers have the same general appearance, they vary greatly in power, storage capacity, weight, and battery life. It depends on [2] your uses.

Henry: Well, I am a regular user. I need a desktop replacement and **portable** computer. I typically run office software, use the Internet, and listen to music.

[1] Replace with:
1. What's your opinion on it?
2. What's your take on it?
3. What's your view on it?

[2] Replace with:
1. relies on
2. depends upon

Sophie: I see. My advice is that you should purchase an affordable traditional notebook computer that includes the following **specs**: middle-tier processors—not the fastest but not the slowest either; 4- to 8-GB of RAM; a 500-GB hard drive; and a 15-inch screen.

Henry: Is it expensive?

Sophie: Approximately $500 to $700 currently. For maximum savings, as well as **compatibility** with most software, many buyers choose Windows-based PCs.

(*When they are talking, Mark comes toward them.*)

Sophie & Henry: Hi, Mark.

Mark: Hi, Henry and Sophie.

Sophie: You are just on time. Just before we were talking about Henry's buying a notebook computer. I heard that you want to purchase a new one also.

Mark: Yes. I am a **power user**. I need a portable computer that can handle the latest video games or process-intensive operations such as video editing, engineering, and design. Sophie, what do you recommend?

Sophie: I see. Well, I suggest that you should purchase a traditional notebook computer that includes the following minimum specs: the fastest categories of processors with large number of **cores** and high GHz **count**; a graphical processor (GPU) **outside of** the main CPU; 8-GB of RAM; a 750-GB hard drive; and a 17- inch screen.

Mark: How much does it cost? [3]

Sophie: Approximately $1000, perhaps more. For games, many individuals choose Windows-based PCs. The video and design industries usually use Macs. What else do you want [4] to know?

Henry: Well, if I want a small, lightweight computer that I can carry, and hope it has a long battery life for extended use, can I purchase a computer like that?

Sophie: Yes. You can purchase an ultrabook with 11- to 13-inch screen, **solid-state** hard drive, 4-GB of RAM, and weight under 4 pounds.

Mark: I guess it is very expensive.

Sophie: Not really, $700 to $1000. Many ultrabooks will not

[3] Replace with:
1. How much does it take?
2. How much is it?
3. How much?

[4] Replace with:
1. What else would you like
2. What other things do you want
3. What other things would you like

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include a DVD drive. Windows-based ultrabooks tend to [5] be more affordable. The MacBook is slightly more expensive, but it has always been considered a leader in the lightweight notebook field.

Mark: Ok, we've got it. Sophie, thanks for your valuable suggestions.

Sophie: My pleasure.

[5] Replace with:
1. are prone to
2. are inclined to
3. have a tendency to

Exercises

Work in a group, and make up a similar conversation by replacing the statements with other expressions on the right side.

Words

ultrabook		超薄笔记本电脑；超级本
portable ['pɔ:təbl]	*adj.*	便携式的，易携带或移动的
specs [speks]	*n.*	说明，规格 (spec 的名词复数)，规范
compatibility [kəm,pæti'biliti]	*n.*	兼容性，适合性
core [kɔ:]	*n.*	核，核心，芯
count [kaunt]	*n.*	计数，计算
solid-state ['sɔlid,steit]	*adj.*	固态的

Phrases

notebook computer	笔记本型电脑，笔记本式计算机，笔记型电脑
power user	高级用户，超级用户
outside of	在……的外面

Listening Comprehension: John von Neumann

Listen to the article and answer the following 3 questions based on it. After you hear a question, there will be a break of 15 seconds. During the break, you will decide which one is the best answer among the four choices marked A, B, C and D.

Questions

1. Where was John von Neumann born?

A. The United States B. Britain C. Hungary D. Germany

2. How many components did von Neumann's computer necessarily contain?

A. Two B. Three C. Four D. Five

3. Which of the following has become synonymous with von Neumann's name?

A. EDVAC B. Modern Computer Architecture

C. Quantum mechanics D. Mathematical physics

Words

brilliant ['briljənt]	*adj.*	超群的，杰出的
distinguish [dis'tiŋgwiʃ]	*v.*	使杰出，使著名
quantum ['kwɔntəm]	*n.*	量子，量子论
mechanics [mi'kæniks]	*n.*	力学
reside [ri'zaid]	*v.*	居住
unveil [ʌn'veil]	*v.*	公布
rewire [ri:'waiə]	*v.*	重接电线
delve [delv]	*v.*	挖掘
predecessor ['pri:disesə]	*n.*	前任，（被取代的）原有事物
successor [sək'sesə]	*n.*	后继者，后续的事物
synonymous [si'nɔniməs]	*adj.*	同义的

Dictation: The Rise of Mobile Computing: the Getting-Smarter Smartphone

This article will be played three times. Listen carefully, and fill in the numbered spaces with the appropriate words you have heard.

While ___1___, Nick Bilton ___2___ that as his father **aged**, his ___3___ expanded as he added new credit cards, membership cards, family photos, stamps, tickets, and other things — until it became so large that he would pull it out of his back pocket when he ___4___, " dropping it on the table like a ___5___ " , Bilton says.

However, for Bilton, a New York Times technology ___6___, it's been the reverse experience: Each year his wallet has become ___7___. "Things that once belonged there have been **[taken over]** by my ___8___ " , he reports, **to the point** that "I ___9___ I didn't need to carry a wallet anymore. My smartphone had replaced ___10___ everything in it ".

Today Bilton's address books, ___11___, maps, music players, and photos have all been ___12___ into his smartphone. So have most ___13___— customer cards, ___14___ membership ID, insurance cards, and so on—which now exist as photos ___15___ in the phone. Movie tickets, ___16___, and airline ___17___ also can be stored as ___18___.

The only two non-mobile phone items Bilton carries are his ___19___ and a bank ___20___ (instead of cash). "But I'm confident," he says, "that those, too, will disappear someday" and become part of the smartphone.

Words

age [eidʒ]	*v.*	成熟，变老
columnist ['kɔləm(n)ist]	*n.*	专栏作家
slim [slim]	*adj.*	微小的，苗条的，修长的
gym [dʒim]	*n.*	健身房，体育，体育馆
coupon ['ku:pɔn]	*n.*	息票，赠券
replica ['replikə]	*n.*	复制品，复制物

Phrases

take over	取代，接管
to the point	切题，中肯，扼要
boarding pass	登机证
driver's license	驾驶执照
debit card	借记卡，签账卡，提款卡

Abbreviations

ID	Identification Card	身份证件

Part 2 Reading and Translating

Section A: Computers to Fit Every Need

The types of computers available today vary from the tiny computers embedded in consumer products, to the mobile devices that do a limited number of computing tasks, to the powerful and versatile desktop and portable computers found in homes and businesses, to the super powerful computers used to control the country's defense systems. Computers are generally classified in one of six categories, based on size, **capability**, and price.

- Embedded computers—tiny computers embedded into products to perform specific functions or tasks for that product.
- Mobile devices—mobile phones, small **tablets**, and other small personal devices that

contain built-in computing or Internet capabilities.

- Personal computers—fully functioning portable or desktop computers that are designed to be used by a single individual at a time.
- Servers—computers that **host** data and programs available to a small group of users.
- **Mainframe** computers—powerful computers used to host a large amount of data and programs available to a wide group of users.
- Supercomputers—extremely powerful computers used for complex computations and processing.

In practice, classifying a computer into one of these six categories is not always easy or straightforward. For example, some **high-end** personal computers today are as powerful as servers, and some personal computers today are the size of a mobile phone or smaller. In addition, new trends impact the categories. For example, small tablet devices (often called mobile tablets, media tablets, or just tablets) are typically considered mobile devices because they are only slightly larger than a mobile phone, are typically used primarily for viewing Web content and displaying multimedia content instead of **general-purpose** computing, and usually run a mobile operating system. However, larger, more powerful tablet computers running a desktop operating system are typically considered personal computers（Figure 1-1）. So even though the distinction between some of the categories (particularly mobile devices and personal computers) is blurring, these six categories are commonly used today to refer to groups of computers designed for similar purposes.

Niche devices all have one thing in common: They contain a microprocessor. Some of these devices, such as smartwatches, smartglasses, and **fitness** trackers, can be classified as wearable computers.

Ebook readers. **Popularized** by the NOOK and the Kindle, ebook readers are designed for displaying the content of digital publications, such as books, magazines, and newspapers. **Dedicated** ebook readers are limited to displaying digital books, but the Kindle Fire and NOOK Tablet include a browser for accessing the Internet and are also classified as tablet computers.

Game consoles. Devices for playing computer games include Sony's PlayStation, Nintendo's Wii, and Microsoft's Xbox. They feature powerful processing capability and excellent graphics, but they are generally used for dedicated game playing and streaming videos rather than running application software.

Figure 1-1 A user is using a personal computer

Portable media players. Media players, such as the iPod Touch, revolutionized the music industry by providing consumers with a handheld device that can store and play thousands of songs. These devices are controlled by touchscreens or simple click-wheel mechanisms.

Smartwatches. Watches and clocks were some of the first devices to go digital. Mass produced in the 1970s with a price as low as $10,

these watches were limited to time and date functions. In 2013, Samsung, Google, and Qualcomm introduced **a** new **breed of** digital watch. **Dubbed** smartwatches, these multifunction devices can include a camera, thermometer, compass, calculator, cell phone, GPS, media player, and fitness tracker. Some smartwatch functions are **onboard** the device, whereas other functions require access to the Internet or to the wearer's smartphone.

Smartglasses. Head-mounted digital devices designed to look like eyeglasses are called smartglasses. These devices, which include the well-known Google Glass, are controlled by voice commands or a touchpad on the rim. They include a camera and a display device that essentially beams an image toward the wearer's eye. Apps for smartglasses provide access to email and popular social media sites, such as Facebook and Twitter.

Activity trackers. To monitor activity throughout the day, you can wear a fitness tracker. These devices, worn on the wrist or clipped to a pocket, monitor your steps and heart rate. They can calculate **calories**, graph your fitness achievements, and share information with your Facebook friends.

*Smart **appliances**.* Modern refrigerators, washing machines, and other appliances are controlled by integrated circuits called microcontrollers that combine sensors with processing circuitry. Microcontrollers can monitor energy efficiency, offer programmed start times, and may be controlled remotely from a smartphone or laptop.

Words

capability [ˌkeipə'biləti]	*n.*	功能，性能
tablet ['tæblit]	*n.*	平板电脑
host [həust]	*v.*	存放，宿主，招待，主持
mainframe ['meinfreim]	*n.*	[计]大型机，主机
high-end ['haiend]	*adj.*	高端的，高档的
general-purpose ['dʒenərəl'pə:pəs]	*adj.*	多用途的，一般用途的，通用的
fitness ['fitnis]	*n.*	健身，健康
popularize ['pɔpjuləraiz]	*v.*	普及，使通俗化
dedicated ['dedikeitid]	*adj.*	专用的，专注的
dub [dʌb]	*v.*	把……叫作，称呼
onboard [ɔn'bɔ:d]	*adj*	随……携带的，机载的
calories ['kæləri]	*n.*	卡路里（热量单位）
appliance [ə'plaiəns]	*n.*	器具，器械，装置

Phrases

game console	游戏机
a breed of	[非正式用语]种类，类型（常与 different 或 new 连用）

Exercises

I. Read the following statements carefully, and decide whether they are true (T) or false (F) according to the text.

____ 1. Servers are computers embedded into products to perform specific functions or tasks for that product.

____ 2. Supercomputers fully functioning portable or desktop computers that are designed to be used by a single individual at a time.

____ 3. Niche devices all contain a microprocessor.

____ 4. Activity trackers can be classified as wearable computers.

____ 5. Kindle Fire and NOOK Tablet are classified as tablet computers because they include a browser for accessing the Internet.

II. Choose the best answer to each of the following questions according to the text.

1. Which of the following is common for all niche devices?

A. They contain a printer　　B. They contain a microprocessor

C. They contain a keyboard　　D. All of the above

2. Which of the following can be classified as wearable computer?

A. Smartwatches　　B. Smartglasses

C. Fitness trackers　　D. All of the above

3. Based on size, capability, and price, how many categories do computers generally have?

A. 3　　B. 4　　C. 5　　D. 6

III. Identify the letter of the choice that best matches the phrase or definition.

a. desktop　b. modem　c. network　d. output　e. presentation

_____1. The most widely used communication device.

_____2. A communication system connecting two or more computers.

_____3. A type of a file that might contain, for example, audience handouts, speaker notes, and electronic slides.

_____4. Type of computer that is small enough to fit on top of or alongside a desk yet is too big to carry around.

_____5. Devices that translate the processed information from the computer into a form that humans can understand.

IV. Fill in the numbered spaces with the words or phrases chosen from the box. Change the forms where necessary.

dubious	patent	contemporary	inappropriate	deserve
mere	award	contribute	apparent	credit

Who Invented What?

____1____ a single individual credit for an invention is always a ____2____ undertaking.

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