21世纪高职高专教育规划教材

职业英语

PROFESSIONAL ENGLISH

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编 审 说 明

本书是为适应高等职业教育专科学生将来择业需要而编写的专业英语教材。教材力求从高等技术应用型人才培养的总体目标出发，结合学生毕业后的工作实际，力求向学生提供其未来岗位所需要的专业英语知识，培养学生使用涉外业务英语的能力。

在本书编写过程中，我们注意将专业知识学习和英语学习有机地结合起来，在复习基础英语知识的基础上，侧重于专业英语阅读和翻译技巧的训练。教材中的文章全部选自英文原版资料。既有专业基础知识，又体现了最新技术发展动向。本教材的突出特点是突破了传统专业英语教材的单一模式，融合了十几个相关专业知识。教材内容涉及到数控、材料、模具、机电、通信、汽车、财经、计算机、电子商务、会计、旅游、服务、会展等若干专业领域，实用性强，涵盖面广。其目的是拓宽学生的知识面，使学生对相关专业有所了解。全书内容努力做到简明、连贯、准确，给学生提供一个提高英语水平和专业技能的平台。通过本书学习，学生能够掌握一定量的专业英语词汇，可以顺利阅读和翻译原版英文资料及说明书，具备未来岗位所要求的专业英语知识。

本教材的另一个特点是在课文的后面配有系统的翻译及阅读理解练习。全书分为机械、电力、计算机、管理、旅游五个模块，每个模块各有三至四个单元，各单元均由对话、课文、词汇、短语及练习组成。课后练习中所选文章文字流畅，内容准确，可读性强，并与各单元的主课文内容相互呼应。同时还融

入了一些当前最新、最具时代感的课外知识，以适应学生今后发展的需要。高职高专毕业生面临多种选择，因此学生要放开眼界，学好本专业知识的同时，对本专业以外的相关知识也要有所了解，使学生一专多能，触类旁通，以便提高就业竞争力。本书正是适应了这种需要，具有专业性强、覆盖面广的特点，是一本理想的职业英语教材。

本教材配有相应的电子课件以供教师和学生参考。

由于编者水平有限，书中难免存在一些错误和疏漏之处，敬请广大读者不吝赐教。

21世纪高职高专教育规划教材编审指导委员会

2009年3月

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Part I Conversations

Read and Work in Pairs

Dialogue 1

Mr. King: Which school are you from?

Lily: I am from Shenyang Polytechnic College.

Mr. King: What is your major?

Lily: My major is Materials Science.

Mr. King: How many courses do you take in this *semester*?

Lily: I have chosen 7 to get my credits, such as Mechanical Drawing, Engineering Mechanics, *Metallurgical* Technology, Fundamentals of Machine Design, Fundamentals of Materials Engineering, Electrician and Electronic Technology and English.

Mr. King: Can you say something about your teachers?

Lily: My teachers are very active and humorous in class. We are certainly lucky to have them as our teachers.

Mr. King: Would you like to talk about your English study?

Lily: I believe that listening to the tape is one of the good ways of learning English. I'm planning to pass CET – 4 this coming June.

Mr. King: Would you tell me your experience in English study?

Lily: I think there is no better way than hard work and constant practice. You know, practice makes perfect.

Dialogue 2

Mr. King: What new courses do you have this term?

Lily: Advanced Mathematics and Mechanical Drawing.

Mr. King: What kind of books do you like to read in your spare time?

Lily: I enjoy reading fables and science fiction.

Mr. King: Have you ever attended any lectures?

Lily: Of course, we have "*SyPC Elite Forum*" in our college. Over the years we have invited experts in various fields here to give us lectures. We can attend the lectures and be informed of the most advanced information of our favorable *disciplines.*

Mr. King: Have you got any *scholarship* or *assistantship* in this college?

Lily: Yes, I won the full *scholarship* when I was a *sophomore.*

Mr. King: How is your campus life?

Lily: We really have a full and fantastic college life. There are varieties of students committees on campus and you can join

the ones you favor.

Mr. King: What do you think of students' taking the part – time job?

Lily: Well, I believe we can gain some practical experience from a part – time job, but it must fit your study schedule and doesn't interrupt your routine study.

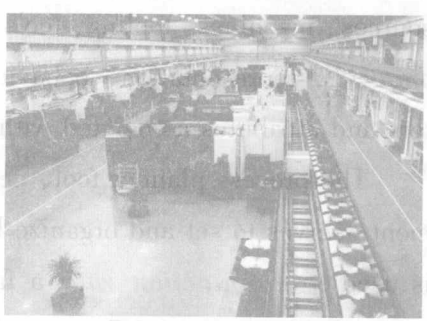
Part || Reading

Text The Future Factory Is Digital

The start of the 1980s brought the automation and robotics revolution, with the development of CAD robotics followings in its wake. These companies together with the traditional CAD/CAM suppliers and specialized companies started to explore the possibilities that the new technologies offered.

Initially software companies marketed solutions basing mainly on simulating robot behavior on graphic screen to *assess* the *feasibility* of various manufacturing tasks. This progressed to numerically controlled (NC) production machines, where the data on the design of components was either directly downloaded from computers in a CAD/CAM design office or programmed offline directly into the machine controller.

The 1990s brought *specialization* of the software. Various applications were specified by "process", covering both the idea of the job and the *workflow*. *Assembly*, machining, quality control, arc welding, spot welding, 3D laser or water jet cutting were among the widely used process application software. This type of soft-



ware has now gained the *sobriquet*, with *Technomatix* Technologies, of Computer Aided Production Engineering (CAPE) and has progressed to provide a *coherent* set of software tools for designing workshop processes. To be totally effective the software must be an *integral* part of the host information technology *infrastructure* and be able to communicate both *upstream*, with the CAD tools, and downstream with control over the production facilities.

The development of CAPE has led to the concept of "*virtual* manufacturing". Models can be created and manufacturing environments simulated so closely that different industrial *strategies* can be explored and evaluated that choices of the best productivity, quality of manufacturing, *target* production rates or return on equity can be made prior to any "solid" components existing.

Nowadays with CAPE tools more widespread in industry a fourth wave of "virtual manufacturing" is taking place. The software comprises two main elements: a process planning tool at the front end backed up by a process database, which contains the descriptions of the various manufacturing resources, machines, tooling, tools, bio – mechanical models with their *geometrical* representation, behavior, processes executed and all parameters and attributes associated with them.

The process planner tool, generally available in a Windows environment, serves to set and organize blocks of functions within the factory. It is used *in conjunction with* a factory planning and simulation software which displays material flow, *taking into account* production scheduling.

It will highlight ***bottlenecks*** in the installation and, using statistical and probability models, it can stimulate the impact of ***discrete*** events, such as machine breakdowns, accidents, stock shortages, etc. that could occur in the installation.

New words & expressions

semester [si'mestə] n. 学期
metallurgical [ˌmetə'lə:dʒikəl]a. 冶金的,冶金学的
sophomore ['sɔfəmɔ:, -mɔr]n. 大学二年级生(在企业中工作第二年的人)
discipline ['disiplin]n. 训练,纪律,惩罚 v. 训练,惩罚
scholarship ['skɔləʃip]n. 奖学金,学问,学识
assistantship [ə'sistəntˌʃip]n. 助手职位
automation [ˌɔ:tə'meiʃən] n. 自动化
specialized ['speʃəlaizd]a. 专门的,专科的
initially [i'niʃəli] ad. 最初,开头
assess [ə'ses] v. 估定,评定
infrastructure ['infrə'strʌktʃə] n. 下部构造,基础结构,基础设施
manufacturing [ˌmænju'fæktʃəriŋ] n. 制造业; a. 制造业的
specialization [ˌspeʃəlai'zeiʃən] n. 特别化,特殊化,专门化
workflow ['wə:k fləu] 工作流程
assembly [ə'sembli] n. 装配,集合,集会
sobriquet ['səubrikei] n. 绰号
technomatix (technology matrix)技术矩阵
coherent [kəu'hiərənt] a. 连贯的,清晰的,明了的,凝聚性的

integral ['intigrəl] a. 构成整体所必需的,完整的 n. [数学] 积分,完整,部分

upstream ['ʌp'stri:m] 向上游,逆流地

feasibility [ˌfi:zə'biləti] n. 可行性

virtual ['və:tjuəl, -tʃuəl] a. 虚拟的,实质的

strategy ['strætidʒi] n. 战略,策略

target ['tɑ:git] n. 靶,目标;vt. 把...作为目标

geometrical [dʒiə'metrikəl] a. 几何学的,几何的

conceptualization [kənˌseptjʊəlai'zeiʃən; -li'z-] n. 概念化

bottleneck ['bɔtl.nek] n. 瓶颈

discrete [dis'kri:t] a. 不连续的 离散的;[计算机] 分离 离散

SyPC Elite Forum 沈职院大讲堂

take into account 考虑(注意,顾及,体谅)

in conjunction with 连同(共同,与-协力,连带着)

Part III After Reading Tasks

I Answer the following questions according to the text.

1. When did the automation robotics revolution start?
2. What were software companies market solutions basing mainly on initially?
3. What does CAPE stand for?
4. What has led to the concept of "virtual manufacturing"?
5. What does a process planner tool serve?

Ⅱ After reading the text, please decide whether the following statements are true or false.

1. The automation robotics revolution started as early as the latest sixties of the last century.
2. Software companies began to bring to the market with the software of specialized nature mainly based on simulating robot behavior on graphic screen.
3. Numerical controlled machines are made to design components by means of directly downloading data from design office.
4. 1990s saw the great progress in the development and improvement in various software or special purposes.
5. The fourth wave of virtual manufacturing has been taking place with the CAPE tools more and more widely used.

Ⅲ Read the two passages and then try to put them into Chinese.

Passage1

Globalization is also bringing about the integration of the internationally distributed facilities of a single company into a truly coherent global production resource. The commitment of the Ford Motor Company to this goal is a case. In 1993 Ford announced that it was electronically merging its seven automotive design centers. Then, in 1994, CEO Alexander Trotman announced that Ford was merging all its activities, distributed among 30 countries, into a single global operation. Vehicle type development will be divided among five

centers by vehicle type (small cars and light trucks, mid-size cars, etc.), not by national or regional market.

Passage2

The development of northeast industrial base brought opportunities and challenges to students in vocational schools. This article takes the basic situation of Shenyang industrial base as instance, elaborates the opportunities and challenges vocational school students encountered in the society from the aspects of the students' abilities and skills; it also indicates how to improve personal culture and capabilities, how to face challenges actively in order to gain stable and continuous success in employment competition.

Ⅳ Fill in the blanks with the proper words given below, changing the form if necessary.

consist	drive	interpret	means	accomplish
link	type	corresponding	software	used

The computer in CNC operates by __1__ of software. There are three __2__ of software programs __3__ in CNC systems: (1) operating system software, (2) machine interface __4__, and (3) application software. The principal function of the operating system software is to __5__ the NC part programs and generate the __6__ control signals to __7__ the machine tool axes. The machine interface software is used to operate the communication __8__ between the CPU and the machine tool to __9__ the CNC auxiliary functions. The application software __10__ of the NC