

Workplace English

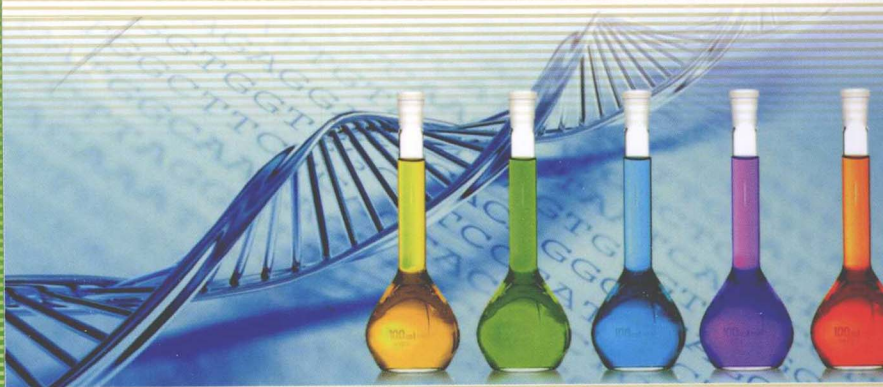
总主编 安晓灿 车贵成

21世纪应用型本科教育行业英语系列教材

Workplace English
for
Biotechnology

生物技术行业英语

肖 岭 朱定和 主编



暨南大学出版社
JINAN UNIVERSITY PRESS

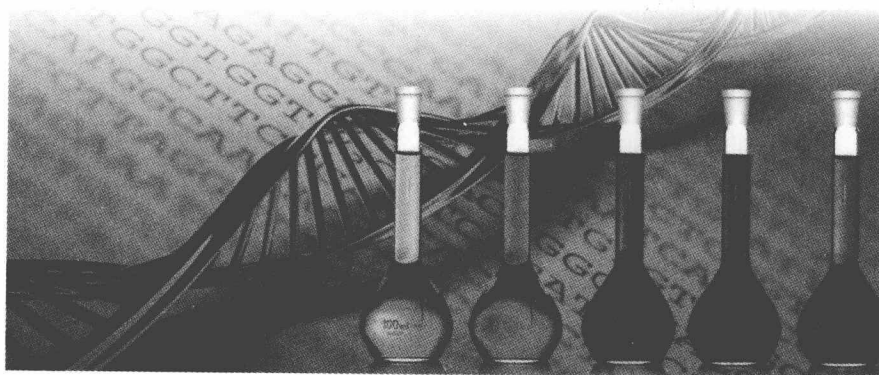
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前 言

2002 年教育部启动新世纪大学英语教学改革,2007 年颁布《大学英语课程教学要求》。在该教学文件的指导下,大学英语课程教学改革与建设蓬勃发展,取得了令人瞩目的成绩:创建出以现代信息技术,特别是网络技术为支撑的教学模式,确立了学生在教学过程中的主体地位,建设了资源共享的大学英语学习网站和自主学习视听说学习中心,使英语学习朝着个性化和自主式学习方向发展;课程内容体系也开始向综合英语类、语言技能类、语言应用类、语言文化类和专业英语类的必修课程和选修课程相结合的方向扩展。

在过去的 10 年中,许多地方应用型本科院校的大学英语课程建设经历了从专科教育向本科教育的过渡,包括师资队伍建设、教学文件建设、基础英语教学内容体系和教学方法的改革等方面取得比较显著的成效。但是,目前大多数院校把教学内容定位在基础英语,教学目标定位在大学英语四级考试合格率。显然,这样的教学目标与地方院校应用型人才的培养目标和社会需求是不完全吻合的。地方高校大学英语教学深化改革面临的重大研究课题应该是:根据应用型人才的培养目标和社会需求扩展课程内容体系,做到辅助专业,注重实用,面向社会,服务行业。开发应用型本科教育行业英语教材正是基于上述的分析和改革的需要,目的是培养学生在职场环境下使用英语进行交际的能力,为提升就业竞争力及未来的可持续发展打下必要的基础。

本系列教材的开发是在积极与专业课教师合作,针对应用型本科院校大学英语开设拓展课程的教学需要下进行设计的,其突出特色是:

1. 突出大行业职场交际所需要的英语知识与技能的训练,注重交际语言和技能的实用性、通用性、时效性、典型性和可模拟性。
2. 选用的材料反映该行业的发展史和在技术应用方面的最新或重大成果。听说材料与职场情景密切相关,简短精炼;阅读文章的题材以职场交际需求为主线,体裁多样化,如行业人物访谈、行业发展趋势与动向、企业或公司简介、新产品/技术引进与开



发介绍等，既体现行业涉外交际的需要，又生动有趣；选用的应用文体现职业需求，简短典型，易读易模拟。

3. 练习的设计体现以完成职场任务为导向和引导学生主体参与的教学理念，充分利用 group work, pair work, discussion, presentation, project, survey report 等学习方式，使练习体现职业性、实践性、交际性和协作性，不仅能为学生创造参与课堂活动的机会，还能指导他们到相关企业进行现场学习和实践，完成 group project, survey report 等学习任务。

本系列教材的每册书由 8 个单元组成，每个单元包括 5 个部分，即单元目标 (Unit Objectives)、听与说 (Let's Listen and Talk)、读与写 (Let's Read and Write)、职场项目 (Workplace Project) 和职业沙龙 (Career Salon)。书后附有练习答案、参考译文、听力会话和短文的文字材料及光盘。

本书以生物技术行业为背景，涉及的题材有生物技术简介、基因工程、生物材料、生物能源、发酵工程、酶工程、生物技术与人类健康、生物技术安全等。

本系列教材的总主编是韶关学院外语学院安晓灿教授和车贵成教授；生物技术行业英语是由韶关学院外语学院与食品工程学院合作完成，主编是韶关学院外语学院肖岭和食品工程学院朱定和，副主编是外语学院的彭如青和吕海霞；编者有肖岭（第一单元）、彭如青（第二单元）、吕海霞（第三单元）、贾婷婷（第四单元）、颜萍（第五单元）、刘英（第六单元）、诤琳琳（第七单元）、汪继敏（第八单元）；全书的选材和翻译由食品工程学院朱定和完成。

本系列教材的开发是一次大胆的尝试，目的是推进应用型本科教育大学英语课程的改革与建设，其中定会存在不当和疏漏之处，敬请使用者批评指正。

编者

2012 年 3 月

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Unit 1

What Is Biotechnology

Unit Objectives

- * Learn how to prepare and attend a job interview.
- * Learn about the rudimentary knowledge of biotechnology.
- * Learn how to write a resume.

Let's Listen and Talk

Listening

Situation 1 Being interviewed for the job as a laboratory assistant

Task 1

Listen to the conversation and tick the questions the interviewer has asked.

- ☐ 1. Are you sure you want to apply for this job?
- ☐ 2. Do you know exactly what you would be doing as a Laboratory Assistant?
- ☐ 3. What sort of student do you regard yourself as?
- ☐ 4. Why did you leave your last job?
- ☐ 5. What were your favorite subjects at school?
- ☐ 6. Have you ever had a job before?
- ☐ 7. Have you got married?
- ☐ 8. Why do you think that you deserve to get the job?

Task 2

Listen to the conversation again and complete the sentences according to what you've heard.

Michael: Good afternoon, sir. My name is Michael. I've just graduated from a _____ 1 _____ this year.

Mr. Martin: You've applied for the _____ 2 _____ position, right?

Michael: Yes. When I saw the advertisement I thought it would really suit me.



Mr. Martin: Do you know exactly what you would be doing as a Laboratory Assistant?

Michael: A laboratory assistant helps to 3, keep a check on the supplies in the store, and prepare the chemicals for experiments.

Mr. Martin: Do you have any plans for further study?

Michael: Well, I've thought about doing the part-time 4 course at Technical College. I think I would really 5 doing that.

Mr. Martin: Have you ever had a job before?

Michael: Yes. I've worked part-time at a take-away-food store—the one just round the corner.

Mr. Martin: We have a lot of other applicant for this position. Why do you think that you 6 get the job?

Michael: Well, I've found out a lot about this type of work and my research suggests that I would be quite 7 doing the work involved. I also think that I would be able to handle any 8 reasonably well.

Mr. Martin: I think I have asked you everything I wanted to. Thank you for coming along to the interview.

Michael: Thank you. When will I know if I am successful?

Mr. Martin: We'll be in touch with you by telephone or by mail within a week. Well. Goodbye.

Michael: Goodbye.

Situation 2 Getting better prepared for a job interview

Task 3

Listen to the passage with some blanks for you to fill in.

Background research is critical for success in an interview. Your research should focus on two key areas: 1 background information about the organization and 2 information on the role that you are 3. General information on the organization can be found using several 4. The Internet is an incredibly valuable source of information on the 5 of companies—many sites will 6 give you almost all the information you will need for the interview. You can also talk to people you know who work for the organization, or people who are their 7 or suppliers. Watch, read, and listen to the 8. While you are job searching, you should try and 9 current affairs and the business news as often as possible. If an organization has been in the news recently they will expect exceptional 10 to have noticed!

Task 4

Listen to the passage again and answer the following questions.

1. Why should you do background research before an interview?
2. What key areas should your research focus on ?

3. What sources can you use to get the general information on the organization?
4. Why the is Internet a valuable source of information on the majority of companies?
5. Why should you try and monitor current affairs and the business news as often as possible?

Speaking

Situation 3 Being asked about personal skills in an interview

Sample Dialogue 1

Interviewer: Why don't you tell me about yourself, Victor?

Victor: My name is Victor. I'm 22 years old. I graduated from North University of Science and Technology.

Interviewer: Have you obtained any certificate of technical qualifications or license?

Victor: Yes, I have received an Engineer's Qualification Certificate and a driver's license.

Interviewer: How many years have you had the driver's license?

Victor: I have two years driving experience.

Interviewer: That's good. What special skills do you have?

Victor: I have experience in computer operation, proficiency in Microsoft Windows, Microsoft Word and Microsoft Excel.

Interviewer: What computer languages have you learned?

Victor: Visual C++ , C and Delphi.

Interviewer: Have you got any special training in programming?

Victor: No, but I have database programming experience and network knowledge.

Task 5

Pair work. Role-play a job interview with your partner according to the situation:

You are attending a job interview with the personnel manager of ABC Company. The manager is asking about your personal skills.

Suggested expressions and sentences for doing the task:

Expressions	Sentences
proficiency	Why don't you tell me about yourself?
fluently	How do you think of your English?
qualification	How do you think of your proficiency in written and spoken English?
certificate	I think my English is good enough to communicate with English speaking people.
license	What other foreign language do you speak?
programming	
database	



Situation 4 Being asked about work experience in an interview

Sample Dialogue 2

Interviewer: What kind of jobs have you had?

Michael: I have been a Production Manager.

Interviewer: How many years have you worked as a Production Manager?

Michael: Three years.

Interviewer: Would you like to tell me something about your outstanding achievements?

Michael: I had introduced an advanced product line, which increased the output and lessened the cost.

Interviewer: Wonderful. Then how many employers have you worked for?

Michael: Frankly speaking, three. If your company employs me, it will be my fourth.

Interviewer: Then have you received any award at your present company?

Michael: Yes. I was awarded the title of Advanced Worker last year.

Interviewer: How would you evaluate the company you are with?

Michael: Although I could not say that everything is perfect there, I still very much appreciate what the company has given me, especially many chances.

Interviewer: How would your colleagues evaluate you?

Michael: They would say I am a responsible friend and a capable colleague.

Task 6

Pair work. Start a conversation with your partner according to the situation:

You are attending a job interview with the personnel manager of ABC company. The manager is asking about your work experience.

Suggested expressions and sentences for doing the task:

Expressions	Sentences
coordinator	Do you have any work experience in this field?
representative office	What kind of jobs have you had?
joint venture	What's your responsibility at your present work unit?
cooperate	I am responsible for product distribution.
dependable	I have 4 years experience in staff management.
outstanding	I have experience as a receptionist.
evaluate	What have you learned from the jobs you have had?
perfect	Would you like to tell me something about your outstanding achievements?
capable	How would you evaluate the company you are with?
appreciate	
recommendation	

Reading

Read Passage 1 and then work in pairs to speak out the common expressions given in brackets.

2. One section of biotechnology is the directed use of organisms for the manufacture of (有机食品).

4. Green biotechnology tends to produce more _____ (环保的) solutions than traditional industrial agriculture.

6. Bioremediation may be employed in order to _____ (抑制特定的污染物).

[illegible]



<p>of organic products (examples include beer, milk-products, and skin). Naturally present bacteria are utilized by the mining industry in bioleaching. Biotechnology is also used to recycle, treat waste, clean up sites contaminated by industrial activities, and produce biological weapons.</p> <p>There are a number of jargon terms for sub-fields of biotechnology.</p> <p>Red biotechnology is biotechnology applied to medical processes. An example would include an organism designed to produce an antibiotic, or engineering genetic cures to diseases through genomic manipulation.</p> <p>White biotechnology, also known as grey biotechnology, is biotechnology applied to industrial processes. An example would include an organism designed to produce a useful chemical. White biotechnology tends to consume fewer resources than traditional processes when used to produce industrial goods.</p> <p>Green biotechnology is biotechnology applied to agricultural processes. An example would include an organism designed to grow under specific environmental conditions or in the presence (or absence) of certain agricultural chemicals. Green biotechnology tends to produce more environmentally-friendly solutions than traditional industrial agriculture.</p> <p>The term blue biotechnology has also been used to describe the marine and aquatic applications of biotechnology, but its use is relatively rare.</p> <p>Biotechnology timeline:</p> <p>8000 BC Collecting of seeds for replanting. Evidence that Babylonians, Egyptians and Romans used selective breeding (artificial selection) practices to improve livestock.</p> <p>6000 BC Brewing beer, fermenting wine, baking bread with the help of yeast.</p> <p>4000 BC Chinese made yoghurt and cheese with lactic-acid-producing bacteria.</p> <p>1500 Plant collecting around the world.</p> <p>1800 Nikolai I. Vavilov created comprehensive research on breeding animals.</p> <p>1880 Microorganisms were discovered.</p> <p>1856 Gregor Mendel started recombinant plant genetics.</p> <p>1919 Karl Ereky, a Hungarian engineer, first used the word biotechnology.</p> <p>1975 Method for producing monoclonal antibody developed by Kohler and Milstein.</p> <p>1980 Modern biotech is characterized by recombinant DNA technology. The prokaryote model, <i>E. coli</i>, is used to produce insulin and other medicine, in human form (about 5% of diabetics are allergic to animal insulins available before).</p> <p>1992 FDA approves of the first GM food from Calgene: "flavor saver" tomato.</p> <p>2000 Completion of the Human Genome Project.</p> <p>Industrial biotechnology (also known as white biotechnology) is the practice of using cells to generate industrially-useful products. The Economist speculated (as cited in the <i>Economist</i> article listed in the "References" section) industrial biotechnology might significantly impact the chemical industry. The <i>Economist</i> also suggested it might enable economies to become less dependent on fossil fuels.</p> <p>Bioremediation can be defined as any process that uses microorganisms or their enzymes to return the environment altered by contaminants to its original condition. Bioremediation may be employed in order to attack specific contaminants.</p>	<p>有机(体)的 细菌; 生物浸取 被污染的</p> <p>行话</p> <p>抗生素 染色体组的; 操作</p> <p>环保的</p> <p>水生的</p> <p>巴比伦人</p> <p>家畜 酿造; 发酵; 酵母 乳酸</p> <p>微生物 重组细胞</p> <p>单克隆的</p> <p>原核生物; 胰岛素 糖尿病患者; 过敏的</p> <p>基因组</p> <p>推测</p> <p>生物修复 酶; 污染物</p>
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Not all contaminants are readily treated through the use of bioremediation; for example, heavy metals such as **cadmium** and **lead** are not readily absorbed or captured by organisms. The integration of metals such as **mercury** into the food chain may make things worse as organisms **bioaccumulate** these metals.

However, there are a number of advantages to bioremediation, which may be employed in areas which cannot be reached easily without **excavation**.

Generally, bioremediation technologies can be classified as in **situ** or ex situ. In situ bioremediation involves treating the contaminated material at the site while ex situ involves the removal of the contaminated material to be treated elsewhere.

镉; 铅
汞
生物累积

挖掘
原位

Task 8

Read the passage again and supply the missing words or expressions to complete the following statements in pairs.

1. Biotechnology is technology that is based on biology, especially when it is used in _____, _____ and _____.
2. All technological applications that use biological systems, living organisms, or derivatives thereof, to make or modify products or processes for specific use can be defined as _____.
3. Biotechnology can be used to recycle, treat waste, _____ polluted by industrial activities.
4. Red biotechnology is biotechnology that is applied to _____.
5. White biotechnology, or grey biotechnology, is biotechnology that is applied to _____.
6. Green biotechnology is biotechnology that is applied to _____.
7. Blue biotechnology can be used to describe the _____ of biotechnology, but its use is relatively rare.
8. Industrial biotechnology, also known as white biotechnology, is the practice of using cells to _____.

Task 9

Work in groups and discuss the following questions.

1. In what areas can biotechnology be used?
2. How many sub-fields are there in biotechnology? What are they?
3. What is the Economist's speculation about industrial biotechnology?
4. What is bioremediation?
5. What are the advantages of bioremediation?

Task 10

Read the sentences taken from Passage 1 and work in groups to translate them into Chinese.



1. Biotechnology is any technological application that uses biological systems, living organisms, or derivatives thereof, to make or modify products or processes for specific use.

2. An example would include an organism designed to produce an antibiotic, or engineering genetic cures to diseases through genomic manipulation.

3. White biotechnology, also known as grey biotechnology, is biotechnology applied to industrial processes.

4. Bioremediation can be defined as any process that uses microorganisms or their enzymes to return the environment altered by contaminants to its original condition.

5. However, there are a number of advantages to bioremediation, which may be employed in areas which cannot be reached easily without excavation.

Task 11

Work in pairs to complete the statements with the information from Passage 2.

1. Biotechnology has brought us to the edge of a world of “engineered” products that are based on the natural world rather than _____.

2. The term “biotechnology”, coined in 1919 by Karl Ereky, meant _____ of work by which products are produced from raw materials with the aid of living organisms at that time.

3. A common misconception among teachers is the thought that biotechnology includes only DNA and _____.

4. The end of the nineteenth century was a milestone of biology because _____ were discovered, Mendel’s work on _____ was accomplished, and institutes for investigating _____ and other microbial processes were established.

5. At the beginning of the twentieth century biotechnology began to bring _____ and _____ together.

6. Biotechnology is currently being used in many areas, such as agriculture, bioremediation, food processing, and _____.

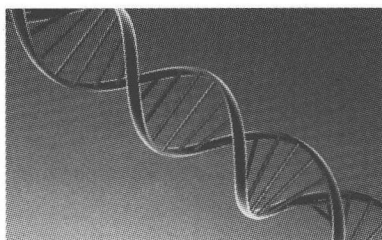
7. Techniques similar to _____ were used recently to identify the

bones of the last Czar of Russia and several members of his family.

8. Now _____ is being used in agriculture so as to produce plants that are resistant to insects, weeds, and plant diseases.

Passage 2

Overview and Brief History of Biotechnology



Biotechnology seems to be leading a sudden new biological revolution. It has brought us to the **brink** of a world of “engineered” products that are based on the natural world rather than on chemical and industrial processes.

Biotechnology has been described as “**Janus-faced**”. This implies that there are two sides. On one, techniques allow DNA to be manipulated to move genes from one organism to another. On the other, it involves relatively new technologies whose consequences are untested and should be met with caution. The term “biotechnology” was **coined** in 1919 by Karl Ereky, an Hungarian engineer. At that time, the term meant all the lines of work by which products are produced from raw materials with the aid of living organisms.

A common **misconception** among teachers is the thought that biotechnology includes only DNA and genetic engineering. To keep students **abreast** of current knowledge, teachers sometimes have emphasized the techniques of DNA science as the “end-and-all” of biotechnology. This trend has also led to a misunderstanding in the general population. Biotechnology is NOT new. Man has been manipulating living things to solve problems and improve his way of life for **millennia**. Early agriculture concentrated on producing food. Plants and animals were selectively bred, and microorganisms were used to make food items such as beverages, cheese, and bread.

The late eighteenth century and the beginning of the nineteenth century saw the **advent** of **vaccinations**, crop **rotation** involving **leguminous** crops, and animal drawn machinery. The end of the nineteenth century was a **milestone** of biology.

Microorganisms were discovered, Mendel’s work on genetics was accomplished, and institutes for investigating **fermentation** and other **microbial** processes were established by Koch, Pasteur, and Lister.

Biotechnology at the beginning of the twentieth century began to bring industry and agriculture together. During World War I, fermentation processes were developed that produced **acetone** from **starch** and paint **solvents** for the rapidly growing automobile industry. Work in the 1930s was geared toward using **surplus** agricultural products to supply industry instead of imports or **petrochemicals**. The advent of World War II brought the manufacture of penicillin. The biotechnical focus

边缘

双面的

创造

误解
并列

千年

出现；接种疫苗；
轮作；豆科的；里
程碑
发酵；微生物的

丙酮；淀粉；溶剂
过剩的
石油化学制品