English for Specific Academic A Purposes



信息通讯技术 英语教程

English for **ICT Studies**

Course Book

Patrick Fitzgerald, Marie McCullagh, Carol Tabor 原著 《大学专门用途英语》改编组 改编





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> English for Specific Academic Purposes

KINXI TONGXUN JISHU YINGYU JIAOCHENG



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《大学专门用途英语》系列教材

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总序

自本世纪初以来,我国大学英语教学改革在课程教学目标的修订、师资队伍的建设、教学方法和手段的完善以及教学评测等方面均取得了突出的成绩。对于许多高等院校来说,如何更好地适应社会经济发展对人才培养的需求,培养高端应用型和国际化的专业人才,是进一步深化大学英语教学改革的一项重要而紧迫的任务。这其中也涉及建设和完善现有的大学英语课程体系,为完成基础阶段英语学习后的大学生开设专门用途英语课程和双语课程。为适应深化大学英语教学改革的需要,高等教育出版社引进Garnet教育出版公司所出版的"ESAP(English for Specific Academic Purposes)系列教材",组织我国高等院校教师进行改编并出版了本套"大学专门用途英语系列教材"。

本系列教材旨在满足大学生进一步学习其专业学科英语的需要,教材编写的思路是:

- 1. 介绍相关专业基本概念、基本知识和研究现状;
- 2. 有效呈现相关专业所涉及的专业术语和学术英语词汇;
- 3. 有机融合语言学习和专业知识、技能的学习和培养:
- 4. 兼顾英语语言输入与产出,培养学生的综合语言技能。

本系列教材首批推出12册,涵盖语言学、商学、管理学、环境科学、心理学、信息技术、机械工程、银行、法律、医药、公共关系、旅游管理等学科。每册由教程和教师用书组成,内容涉及一个专业方向。每册由12个单元组成,奇数单元突出听说和口译技能训练,偶数单元则强调读写和笔译技能训练。各单元专业知识内容衔接性高,技能训练交互性强,强调英语听、说、读、写、译基本技能在专业和学术背景下的协调应用和全面发展。

每单元的内容基本上可以分为四个部分,第一部分主要介绍和集中训练相关词汇,致力于扫除专业和学术词汇障碍;第二部分集中训练专业知识背景下的听力或阅读技能,强调专业和语言学习过程中基本信息输入的质和量这两个要素;第三部分是上一环节的延续和发展,重点训练专业和语言学习过程中信息加工和产出所需要的基本技能;第四部分为口语或写作练习,强化产出技能训练。每单元末尾还附有重点词汇和技能回顾,帮助学生进一步梳理所学内容。

本系列教材既可作为各学科专业英语的入门教材,也可作为以英语学习为主的专门用途英语教材。教师可以根据学生的专业需求和英语语言水平的实际情况来确定教学目标和教学重点,灵活安排课程和教学活动。

《大学专门用途英语》改编组 2011年12月

Introduction

English for ICT Studies is designed for students who plan to take an ICT course entirely or partly in English. The principal aim of English for ICT Studies is to teach students to cope with input texts, i.e., listening and reading, in the discipline. However, students will be expected to produce output texts in speech and writing throughout the course.

The syllabus focuses on key vocabulary for the discipline and on words and phrases commonly used in academic English. It covers key facts and concepts from the discipline, thereby giving students a flying start when they meet the same points again in their faculty work. It also focuses on the skills that will enable students to get the most out of lectures and written texts. Finally, it presents the skills required to take part in seminars and tutorials and to produce essay assignments.

English for ICT Studies comprises:

- the student Course Book including audio transcripts and wordlist
- the Teacher's Book, which provides detailed guidance on each lesson, full answer keys, audio transcripts and extra photocopiable resources
- · audio MP3 with lecture and seminar excerpts

English for ICT Studies has 12 units, each of which is based on a different aspect of ICT. Odd-numbered units are based on listening (lecture/seminar extracts). Even-numbered units are based on reading.

Each unit is divided into four lessons:

- **Lesson 1**: vocabulary for the discipline; vocabulary skills such as word-building, use of affixes, use of synonyms for paraphrasing
- Lesson 2: reading or listening text and skills development
- **Lesson 3**: reading or listening skills extension. In addition, in later units, students are introduced to a writing assignment which is further developed in Lesson 4; in later listening units, students are introduced to a spoken language point (e.g., making an oral presentation at a seminar) which is further developed in Lesson 4
- **Lesson 4**: a parallel listening or reading text to that presented in Lesson 2 which students have to use their new skills (Lesson 3) to decode; in addition, written or spoken work is further practised

The last two pages of each unit, *Vocabulary bank* and *Skills bank*, are a useful summary of the unit content.

Each unit provides between 4 and 6 hours of classroom activity with the possibility of a further 2-4 hours on the suggested extra activities. The course will be suitable, therefore, as the core component of a faculty-specific pre-sessional or foundation course of between 50 and 80 hours.

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Book map

		Topics
1	WHAT IS ICT? Listening · Speaking	defining ICT introduction to different aspects of ICT
2	ICT IN THE WORKPLACE Reading · Writing	 impact of ICT on business, including communication, information management and product design impact of ICT on the nature of work, including teleworking and outsourcing
3	INTRODUCTION TO ICT SYSTEMS Listening · Speaking	 embedded and general purpose systems data storage and management control systems communication systems functions of ICT systems (data capture, processing and output)
4	ICT IN EDUCATION Reading · Writing	 use of computers and the Internet in research and learning computer-assisted learning (CAL), virtual learning environments (VLEs) and their impact on teaching
5	THE HISTORY OF ICT Listening · Speaking	 key stages in the development of the computer (inventions and innovations) development of computer components (input, output, processing and storage) foundations of the Internet
6	THE INTERNET Reading · Writing	 Internet protocols and data transfer Web 2.0 and the future of the Internet social networking services (SNS)
7	SOFTWARE DEVELOPMENT Listening - Speaking	 development methods and processes waterfall, iterative and prototyping models planning the development process open source software
8	EFFICIENCY IN COMPUTER SYSTEMS Reading · Writing	 efficiency in computer systems reliability, security, speed and cost
9	HUMAN-COMPUTER INTERACTION (HCI) Listening · Speaking	 importance and scope of HCI aspects of human sciences and computer sciences different types of interface hardware and software
10	E-COMMERCE AND E-GOVERNMENT Reading · Writing	 types of e-commerce: B2B, B2C, C2C, B2G barriers to adoption of e-commerce
11	COMPUTING AND ETHICS Listening · Speaking	 laws and regulations, including copyright principles and ethics, including privacy and surveillance the role of hacking
12	ICT IN THE FUTURE Reading · Writing	 virtual and mirror worlds augmented reality (AR) lifelogging using technological growth curves to predict future development

	Vocabulary focus	Skills focus	
	 words from general English with a special meaning in ICT prefixes and suffixes 	preparing for a lecture predicting lecture content from the introduction understanding lecture organization choosing an appropriate form of notes making lecture notes	1
		Speaking • speaking from notes	
	English-English dictionaries: headwords · definitions · parts of speech · phonemes · stress markers · countable/uncountable · transitive/intransitive	using research questions to focus on relevant information in a text using topic sentences to get an overview of the text Writing writing topic sentences	2
		summarizing a text	
	 stress patterns in multi-syllable words prefixes 	preparing for a lecture predicting lecture content making lecture notes using different information sources	3
		reporting research findings formulating questions	
	 computer jargon abbreviations and acronyms discourse and stance markers 	Reading • identifying topic development within a paragraph • using the Internet effectively • evaluating Internet search results	4
	verb and noun suffixes	Writing • reporting research findings	
	word sets: synonyms, antonyms, etc. the language of trends	Listening • understanding 'signpost language' in lectures • using symbols and abbreviations in note-taking	5
	common lecture language	Speaking • making effective contributions to a seminar	
	 synonyms, replacement subjects, etc., for sentence-level paraphrasing 	Preading Iocating key information in complex sentences writing reporting findings from other sources: paraphrasing writing complex sentences	6
	 compound nouns fixed phrases from ICT fixed phrases from academic English common lecture language 	 Listening • understanding speaker emphasis Speaking • asking for clarification responding to queries and requests for clarification 	7
	 synonyms nouns from verbs definitions common 'direction' verbs in essay titles (discuss, analyze, evaluate, etc.) 	winderstanding dependent clauses with passives paraphrasing expanding notes into complex sentences recognizing different essay types/structures: descriptive - analytical - comparison/evaluation - argument writing essay plans writing essays	8
	fixed phrases from ICT fixed phrases from academic English	Listening • using the Cornell note-taking system • recognizing digressions in lectures	9
		• making effective contributions to a seminar • referring to other people's ideas in a seminar	
	 'neutral' and 'marked' words fixed phrases from ICT fixed phrases from academic English 	recognizing the writer's stance and level of confidence or tentativeness inferring implicit ideas	10
		writing writing situation—problem—solution—evaluation essays using direct quotations compiling a bibliography/reference list	
	words/phrases used to link ideas (<i>moreover, as a result,</i> etc.) stress patterns in noun phrases and compounds	Listening • recognizing the speaker's stance • writing up notes in full	11
	 fixed phrases from academic English words/phrases related to ethics in computing 	building an argument in a seminar agreeing/disagreeing	
	 verbs used to introduce ideas from other sources (X contends/suggests/asserts that) linking words/phrases conveying contrast (whereas), result 	Reading understanding how ideas in a text are linked writing deciding whether to use direct quotation or paraphrase incorporating quotations	12
	(consequently), reasons (due to), etc. • words for quantities (a significant minority)	 incorporating quotations writing research reports writing effective introductions/conclusions 	

1 WHAT IS ICT?

1.1 Vocabulary

guessing words in context • prefixes and suffixes

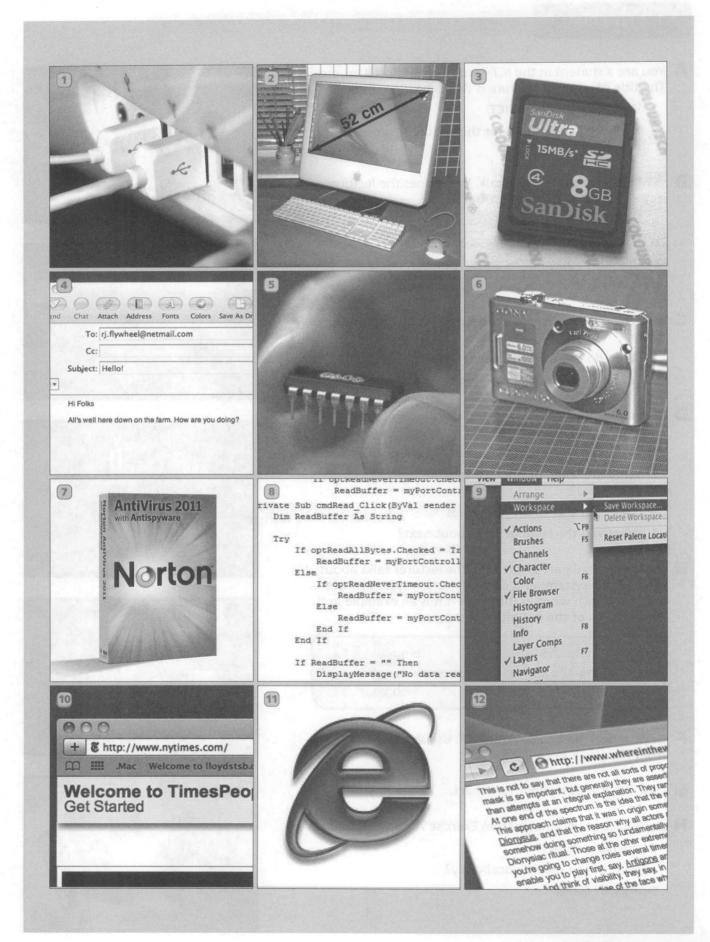
Read the text. The words in bold are probably familiar to you in general English. But can you think of a different meaning for each word used in an ICT context? Change the form if necessary (e.g., change a noun into a verb).

Anna phoned the **language** school to say she had a **virus** and was too ill to work. She found a little **bit** of chocolate in the fridge, **plugged in** her CD player, and sat down to **browse** through her TV magazine and play with her pet **mouse**. On the table there was a **menu** for a local Chinese restaurant. Anna was choosing lunch when the postman arrived with a **package addressed** to her. She stepped out to get it and the door closed behind her. Anna realized her **keys** were inside the house and she was locked out.

B	Rea	ad these sentences from ICT	texts. Complete each sentence with one of the words in bold		
	fro	from Exercise A. Change the form if necessary.			
	1	Select an option from the o	drop-down		
	2	The smallest unit of data in	a computer is a, short for binary digit.		
	3	Antisoftw	are protects computers from infection.		
	4	High-level programming _ numbers and symbols.	, such as C and C++, are made up of letters,		
	5	5 To view information on the Internet you need a web			
	6	Click on the	twice to open the program.		
	7	This software	includes a number of programs that businesses will find useful.		
	8	One way to protect data is to encrypt it so that only someone with the correct, or password, can open it.			
	9	Most Internet	begin www.		
	10	You may need to install a	to play music or watch films on your computer.		

- C Study the words in box a.
 - 1 What is the connection between all the words?
 - 2 What is the base word in each case?
 - 3 What do we call the extra letters?
 - 4 What is the meaning of each prefix?
 - 5 Can you think of another word with each prefix?
- D Study the words in box b.
 - 1 What is the connection between all the words?
 - 2 What is the base word in each case?
 - 3 What do we call the extra letters?
 - 4 What effect do the extra letters have on the base word?
 - 5 Can you think of another word with each suffix?
- Use words from this page to label the pictures on the opposite page. Add labels for other items in the pictures.

- antivirus centimetre gigabyte hyperlink Internet kilobit microchip millisecond miscalculate output restart subnetwork superhighway telecommunications undetected
- classify computerize connector developer digital downloading electronic instruction management mobility paperless performance software technology variable



- A You are a student in the ICT Faculty of Hadford University. The title of your first lecture is What is ICT?
 - 1 Write a definition of ICT.
 - 2 How can you prepare for this lecture? Make some notes.
- E Listen to Part 1 of the talk. What does the lecturer say about ICT? Tick the best choice.
 - a It is about computers.
 - b It is about information.
 - c It is about playing computer games.
 - d It is more than just using a computer.
- In Part 2 of the talk, the lecturer mentions *virus* and *driver*.
 - 1 What do these words mean in the context of ICT?
 - 2 So Listen and check your ideas.
- In Part 3 of the talk, the lecturer describes different places where ICT has an impact.
 - 1 How many different places can you think of?
 - 2 What are some of the technologies used in each place?
 - 3 S Listen and check your ideas.
 - 4 What will the lecturer talk about next?
- In the final part of the talk, the lecturer talks about information systems and communication systems. Listen and mark each word in the box E if it is an example and D if it is part of the definition.

communicate	data	e-mail	
mobile phones	pr	ocess	
store using techr	nology	web page	-

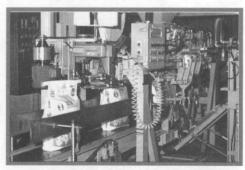
- F Draw a flowchart to illustrate ICT. Use some of the words from Exercise E in your flowchart.
- G Describe ICT, using your flowchart.
- H Look back at your notes from Exercise A. Did you predict:
 - the main ideas?
 - most of the special vocabulary?

See Skills bank











1.3 Extending skills

lecture organization • choosing the best form of notes

A	What	can	you		
---	------	-----	-----	--	--

1 develop?

- 4 assemble?
- 7 program?

2 process?

5 install?

8 computerize?

3 connect?

6 launch?

9 monitor?

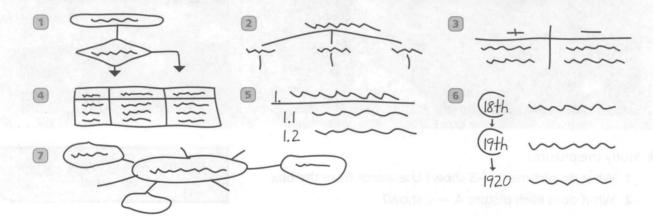
B How can you organize information in a lecture? Match the beginnings and endings.

- 1 question and
- 2 problem and
- 3 classification and
- 4 advantages and
- 5 comparison and
- 6 cause and
- 7 sequence of
- 8 stages of a
- 9 theories or opinions then

- a contrast
- **b** definition
- c disadvantages
- d effect
- e events
- f supporting information
- **q** process
- h solution
- i answer

C How can you record information during a lecture? Match the illustrations with the words and phrases in the box.

tree diagram flowchart headings and notes spidergram table timeline two columns



- Match each organization of information in Exercise B with a method of note-taking from Exercise C. You can use one method for different types of organization.
- E Listen to five lecture introductions. Choose a possible way to take notes from Exercise C in each case. Example:

You hear: In today's session, we're going to look at ICT in business. We will be looking at a car manufacturing company and discussing four areas of business: administration, finance, research and development, and operations, to see what happens in each area and how ICT supports workers in these areas.

You choose: tree diagram

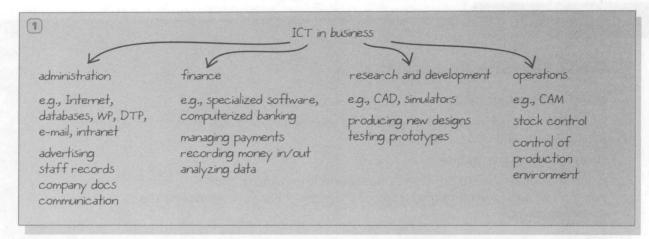


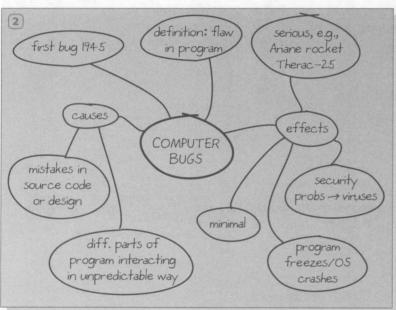
A Study the pictures.

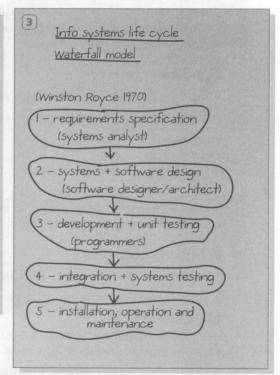
- 1 What do pictures 1-5 show? Use words from the box.
- 2 What does each picture A C show?

engine rocket bug e-mail waterfall

- Cover the opposite page. Listen to the lecture introductions from Lesson 1.3 again. Make an outline on a separate sheet of paper for each introduction.
- Look at your outline for each lecture. What do you expect the lecturer to talk about in the lecture? In what order?
- E Uncover the opposite page. Check your notes with the model notes. Are yours the same or different?
- F Work in pairs.
 - 1 Use the notes on the opposite page. Reconstruct one lecture.
 - 2 Give the lecture to another pair.







4 Internet - how it began

- 1957 Sputnik I, US/Soviet Space Race begins Advanced Research Projects Agency (ARPA) set up by US Gov.
- 1969 ARPANET = small network of computers for use during nuclear attack
- 1972 US scientists and academics using ARPANET
- 1973 ARPANET used internationally
 early 80s Internet worldwide network of
 computers for military use +
 academic/scientific research
- 1986 general public begin using Internet early 90s - Tim Berners-Lee invents HTML (diplays text+ images) + HTTP (information transfer)
- 2009 over 1.7bn users (approx 25% world's pop)

CMC (computer-mediated communication)

Electronic mail (e-mail)

messages sent/received in digital form via

intranet

limited access

Advantages of e-mail

- · easy
- · fast
- · messages cheap to send
- can attach files, e.g., docs, photos, video
- can send I message to many people

external Internet open

worldwide access

Disadvantages

- sometimes e-mails get lost
- set-up costs high (computer, etc.)
- · information overload
- · spam/junk mail
- · viruses

Guessing words in context

Using related words

Sometimes a word in general English has a special meaning in ICT.

Examples:

virus, bit, language, mouse

If you recognize a word but don't understand it in context, think: What is the basic meaning of the word? Does that help me understand the special meaning?

Example:

A virus is something that infects you and makes you feel ill, so a computer virus is something that infects a computer and has a negative effect on how it works.

Removing prefixes

A prefix = letters at the start of a word.

A prefix changes the meaning of a word.

Examples:

restart – start again miscalculate – calculate wrongly

If you don't recognize a word, think:

Is there is a prefix? Remove it. Do you recognize the word now? What does that prefix mean? Add it to the meaning of the word.

Removing suffixes

A suffix = letters at the end of a word.

A suffix sometimes changes the part of speech of the word.

Examples:

develop → developer = verb → noun vary → variable = verb → adjective

A suffix sometimes changes the meaning in a predictable way.

Examples:

paper + less - without (paper) vary + able - able to (vary)

If you don't recognize a word, think:

Is there a suffix? Remove it. Do you recognize the word now? What does that suffix mean? Add it to the meaning of the word.

Skills bank

Making the most of lectures

Before a lecture ...

Plan

- Find out the topic of the lecture.
- Research the topic.
- ? Check the pronunciation of names and key words in English.

Prepare

- Get to the lecture room early.
- ² Sit where you can see and hear well.
- ² Bring any equipment you may need.
- Write the date, topic and name of the lecturer at the top of a sheet of paper.

During a lecture ...

Predict

- 2 Listen carefully to the introduction. Think: What kind of lecture is this?
- Write an outline. Leave space for notes.
- Think of possible answers/solutions/effects, etc., while the lecturer is speaking.

Produce

- Write notes/copy from the board.
- ? Record sources books/websites/names.
- ² At the end, ask the lecturer/other students for missing information.

Making perfect lecture notes

Choose the best way to record information from a lecture.

advantages and disadvantages

cause and effect

classification and definition

comparison and contrast

facts and figures

sequence of events

stages of a process

question and answer

- → two-column table
- → spidergram
- → tree diagram/spidergram
- → table
- → table
- → timeline
- → flowchart
- → headings and notes

Speaking from notes

Sometimes you have to give a short talk in a seminar on research you have done.

- Prepare the listeners with an introduction.
- Match the introduction to the type of information/notes.