



“十二五”规划精品教材

新核心研究生英语

总主编：卫乃兴

工程硕士英语 读译教程

主编：张 莉

English for
Master of Engineering:
Reading and Translation



上海交通大学出版社
SHANGHAI JIAO TONG UNIVERSITY PRESS

新核心研究生英语

总主编：卫乃兴

工程硕士英语 读译教程

主 编 张 莉

副 主 编 陈红平

参编人员（以姓氏汉语拼音为序）

储 艳 杜敬杰 高 华

李 静 牛培培 沈 茜

王乐洋 王 珊 薛晓瑾



上海交通大学出版社

SHANGHAI JIAO TONG UNIVERSITY PRESS

图书在版编目(CIP)数据

新核心研究生英语:工程硕士英语读译教程/张莉主编. —上海:
上海交通大学出版社,2015
ISBN 978-7-313-12428-9

I. ①新… II. ①张… III. ①英语—阅读教学—研究生—教材
②英语—写作—研究生—教材③英语—翻译—研究生—教材
IV. ①H31

中国版本图书馆 CIP 数据核字(2015)第 010660 号

新核心研究生英语 工程硕士英语读译教程

主 编:张 莉

出版发行:上海交通大学出版社

邮政编码:200030

出 版 人:韩建民

印 制:虎彩印艺股份有限公司

开 本:889mm×1194mm 1/16

字 数:262千字

版 次:2015年4月第1版

书 号:ISBN 978-7-313-12428-9/H

定 价:29.00元

地 址:上海市番禺路951号

电 话:021-64071208

经 销:全国新华书店

印 张:9.25

印 次:2015年4月第1次印刷

版权所有 侵权必究

告读者:如发现本书有印装质量问题请与印刷厂质量科联系

联系电话:0769-85252189

前言 | Preface

随着研究生教育规模的不断扩大与教学质量的不断提高,国务院学位委员会特制定了培养工程硕士专业学位研究生的有关规定,使其培养模式定位在国民经济主战场和国家重点工程的建设上,并要求这类研究生应在工程领域具有较高的素质、较强的工程设计能力和较好的工程技术与管理方面的能力。由于工程硕士自身的特点,其外语课程的要求在英语阅读、翻译和实际写作等技能上更趋于实用,这就需要一本相应的教材。《工程硕士英语读译教程》的编写以最新的《全国工程硕士专业学位研究生英语教学要求》为主要依据,能充分满足此类研究生的教学需求,参编者都是长期担任此项教学并具有丰富教学经验的教师。

《工程硕士英语读译教程》共需 72 学时,一个学期完成。全书分 Section A 和 Section B。Section A 注重阅读方面的训练; Section B 侧重科技英语翻译的理论与实践。Section A 包含两部分,每部分 5 个单元,共 10 个单元,每个单元可安排 6 学时左右的时间。第一部分包括第 1~5 单元,以通用英语(EGP)教学为主,侧重人文、社科领域内所需英语语言技巧的训练、巩固与拓展。第一部分 5 个单元在题材选择上采取语言引领下的新视角,触碰当前社会现象和普遍价值观,并结合人文情怀及英语美学思维;第二部分包括第 6~10 单元,以专门用途英语(ESP)教学为主,突出特定领域、特定目的与特定需要的英语视野延展与英语专业化实用技能的培养。第二部分 5 个单元体现了工程领域在专业性和前沿性方面的特征,取材涵盖电力、电子、通信、管理、核能、环保等多个重点或前沿工程学科。两个部分的前后相继充分呈现了层递性与互补性特征,每个单元内容也做了最大程度简洁化与有效化的整合。Section B 分为 5 章,内容紧密结合工程硕士实际工作需要,专注于科技英语翻译的理论与实践。翻译技能训练涵盖内容广泛而全面,涉及词、句、篇章以及数字和图表等的翻译。

总体而言,《工程硕士英语读译教程》的编写注重实用性,强调专业领域内语言运用能力的培养,同时兼顾语言基础的训练与巩固。所选文章基本上来自较新的国外期刊或网

站。在练习编排上,力求形式多样,内容上精而有当,思路一变而有方。

《工程硕士英语读译教程》的主要特点如下:

1. 选材新颖,内容丰富,题材广泛。拓宽工程硕士生英语方面的视野、知识面,提高其专业技能。

2. 语言规范,难度适中,针对性强。立足工程硕士生的实际水平,符合此类研究生的外语教学要求。

3. 层级教学,循序渐进,注重实效。探索工程硕士生英语教学新模式,实现普遍性与专门化教学双管齐下,事半功倍。

4. 本教材不仅适用于工程类硕士研究生,还适用于各类研究生课程班学员、拟申请硕士学位的在职自学人员等。

由于编者水平有限、时间紧迫,错误与疏漏之处在所难免,衷心希望广大读者批评指正。

编者

2014年6月

目录 | Contents

Section A Reading

Unit 1	President Obama's Statement on Bin Laden's Death	3
	Exercises	7
Unit 2	Culture and Business	9
	Exercises	14
Unit 3	Are the Rich Happy?	16
	Exercises	19
Unit 4	Hours of Spring	22
	Exercises	26
Unit 5	Schoolwork	29
	Exercises	34
Unit 6	Computer Crime	37
	Exercises	40
Unit 7	Who Makes it to the Top—Upward Mobility in the Business World	42
	Exercises	46
Unit 8	Practicing Engineers	49
	Exercises	54
Unit 9	Why We Need Nuclear Energy in the 21st Century	56
	Exercises	61
Unit 10	Low-Carbon Economy: Frontier Energy	64
	Exercises	69

Section B Translation

第一章	科技英语翻译概述	75
	1.1 科技文体的特点	75

1.2 科技文体的结构特点与新近的发展变化	76
1.2.1 用词特点与新近的发展变化	76
1.2.2 语法结构特点与新近的发展变化	77

第二章

科技词汇的翻译	80
2.1 科技词汇的来源及构成	80
2.1.1 借用外来语	80
2.1.2 通过构词法	80
2.1.3 创造新词	82
2.2 词义的确定	83
2.2.1 词义的选择	83
2.2.2 词义的引申	84
2.3 词的翻译	85
2.3.1 词的增译	85
2.3.2 词的省译	87
2.3.3 词的转译	88
2.4 科技术语的翻译	89
2.4.1 意译法	89
2.4.2 音译法	90
2.4.3 音意兼译法	91
2.4.4 形译法	91
2.4.5 直译	91

第三章

科技英语的句子翻译	93
3.1 否定句的译法	93
3.1.1 否定范围和否定焦点	93
3.1.2 否定表现形式不同的否定句	94
3.2 并列句	96
3.3 名词性从句的翻译	97
3.3.1 主语从句的译法	98
3.3.2 宾语从句的译法	99
3.3.3 表语从句的译法	99
3.3.4 同位语从句的译法	100
3.4 定语从句的译法	101
3.4.1 限制性定语从句的译法	101
3.4.2 非限制性定语从句的译法	103
3.5 状语从句的译法	104
3.5.1 时间状语从句的译法	104
3.5.2 原因状语从句的译法	105
3.5.3 地点状语从句的译法	105
3.5.4 结果状语从句的译法	106
3.5.5 目的状语从句的译法	107
3.5.6 条件状语从句的译法	107

3.5.7	方式状语从句的译法	108
3.5.8	让步状语从句的译法	108
3.5.9	比较状语从句的译法	109
3.6	强调句的翻译	110
第四章	科技英语篇章的翻译	112
4.1	科普读物	112
4.2	科技英语新闻	114
4.2.1	科技英语新闻的翻译	114
4.2.2	科技新闻例文及翻译	114
4.3	产品说明书	116
4.3.1	产品说明书的语言特点	116
4.3.2	产品说明书翻译实例	117
4.4	专利	118
4.5	国际技术贸易合同	121
第五章	数字、图表、固定句型翻译	124
5.1	数字和数学符号的表达与翻译	124
5.1.1	数字	124
5.1.2	数学符号的表达	125
5.1.3	倍数	126
5.1.4	不定数	128
5.2	逻辑关系的表达及其翻译	129
5.3	图形的表达及其翻译	130
5.3.1	与“图形”相关的术语	131
5.3.2	图形的翻译实例	133
5.4	图表的表达及其翻译	133
5.4.1	关于“图表”的术语	133
5.4.2	常用的图表描述句型	133
5.4.3	图表的翻译实例	134
5.5	固定句型的表达及翻译	135
5.5.1	比例的表达及翻译	135
5.5.2	范围的表达及翻译	136
5.5.3	假设、前提的表达及翻译	136
5.5.4	推导的表达及其翻译	137
5.5.5	定义的表达及翻译	137
5.5.6	因果的表达及其翻译	138
5.5.7	对比与比较的表达及其翻译	139
5.5.8	分类的表达及其翻译	140



Section A Reading



Unit 1

President Obama's Statement on Bin Laden's Death

- 1 Good evening. Tonight, I can report to the American people and to the world that the United States has conducted an operation that killed Osama bin Laden¹, the leader of al Qaeda², and a terrorist who's responsible for the murder of thousands of innocent men, women, and children.
- 2 It was nearly 10 years ago that a bright September day was darkened by the worst attack on the American people in our history. The images of 9/11 are **seared** into our national memory—**hijacked** planes cutting through a cloudless September sky; the Twin Towers³ **collapsing** to the ground; black smoke billowing up from the Pentagon⁴; the wreckage of Flight 93⁵ in Shanksville, Pennsylvania, where the actions of heroic citizens saved even more heartbreak and destruction.
- 3 And yet we know that the worst images are those that were unseen to the world. The empty seat at the dinner table. Children who were forced to grow up without their mother or their father. Parents who would never know the feeling of their child's embrace. Nearly 3,000 citizens taken from us, leaving a gaping hole in our hearts.
- 4 On September 11, 2001, in our time of grief, the American people came together. On that day, no matter where we came from, what God we prayed to, or what race or ethnicity we were, we were united as one American family.
- 5 We were also united in our resolve to protect our nation and to **bring** those who committed this **vicious** attack **to justice**. We quickly learned that the 9/11 attacks were carried out by al Qaeda—an organization headed by Osama bin Laden, which had openly declared war on the United States and was committed to killing innocents in our country and around the globe.
- 6 Over the last 10 years, thanks to the tireless and heroic work of our military and our counterterrorism professionals, we've made great **strides** in that effort. We've **disrupted** terrorist attacks and strengthened our homeland defense. In Afghanistan, we removed the Taliban government, which had given bin Laden and al Qaeda safe haven and support. And around the globe, we worked with our friends and allies to **capture** or kill scores of al Qaeda terrorists, including several who were a part of the 9/11 plot.

- 7 Yet Osama bin Laden avoided capture and escaped across the Afghan border into Pakistan. Meanwhile, al Qaeda continued to operate from along that border and operate through its **affiliates** across the world.
- 8 And so shortly after taking office, I directed Leon Panetta, the director of the CIA, to make the killing or capture of bin Laden the top priority of our war against al Qaeda, even as we continued our broader efforts to disrupt, **dismantle**, and defeat his network.
- 9 Then, last August, after years of painstaking work by our intelligence community, I was briefed on a possible lead to bin Laden. I met repeatedly with my national security team as we developed more information about the possibility that we had located bin Laden hiding within a compound deep inside of Pakistan. And finally, last week, I determined that we had enough intelligence to take action, and authorized an operation to get Osama bin Laden and bring him to justice.
- 10 Today, at my direction, the United States launched a targeted operation against that compound in Abbottabad, Pakistan. A small team of Americans carried out the operation with extraordinary courage and capability. No Americans were harmed. They took care to avoid civilian casualties. After a firefight, they killed Osama bin Laden and took **custody** of his body.
- 11 For over two decades, bin Laden has been al Qaeda's leader and symbol, and has continued to plot attacks against our country and our friends and allies. The death of bin Laden marks the most significant achievement to date in our nation's effort to defeat al Qaeda.
- 12 Yet his death does not mark the end of our effort. There's no doubt that al Qaeda will continue to pursue attacks against us. We must—and we will—remain **vigilant** at home and abroad.
- 13 As we do, we must also reaffirm that the United States is not—and never will be—at war with Islam. I've made clear, just as President Bush did shortly after 9/11, that our war is not against Islam. Bin Laden was not a Muslim leader; he was a mass murderer of Muslims. Indeed, al Qaeda has **slaughtered** scores of Muslims in many countries, including our own.
- 14 Tonight, I called President Zardari, and my team has also spoken with their Pakistani counterparts. They agree that this is a good and historic day for both of our nations. And going forward, it is essential that Pakistan continue to join us in the fight against al Qaeda and its affiliates.
- 15 The American people did not choose this fight. It came to our shores, and started with the senseless slaughter of our citizens. After nearly 10 years of service, struggle, and sacrifice, we know well the costs of war. These efforts **weigh on** me every time. I, as Commander-in-Chief, have to sign a letter to a family that has lost a loved one, or look into the eyes of a service member who's been gravely wounded.
- 16 So Americans understand the costs of war. Yet as a country, we will never tolerate our security being threatened, nor stand idly by when our people have been killed. We will be relentless in defense of our citizens and our friends and allies. We will be true to the values that make us who we are. And on nights like this one, we can say to those families who have lost

loved ones to al Qaeda's terror; Justice has been done.

- 17 Tonight, we give thanks to the countless intelligence and counterterrorism professionals who've worked tirelessly to achieve this outcome. The American people do not see their work, nor know their names. But tonight, they feel the satisfaction of their work and the result of their pursuit of justice.
- 18 We give thanks for the men who carried out this operation, for they **exemplify** the professionalism, patriotism, and unparalleled courage of those who serve our country. And they are part of a generation that has borne the heaviest share of the burden since that September day.
- 19 Finally, let me say to the families who lost loved ones on 9/11 that we have never forgotten your loss, nor **wavered** in our commitment to see that we do whatever it takes to prevent another attack on our shores.
- 20 And tonight, let us think back to the sense of unity that **prevailed** on 9/11. I know that it has, at times, **frayed**. Yet today's achievement is a testament to the greatness of our country and the determination of the American people.
- 21 The cause of securing our country is not complete. But tonight, we are once again reminded that America can do whatever we set our mind to. That is the story of our history, whether it's the pursuit of prosperity for our people, or the struggle for equality for all our citizens; our commitment to stand up for our values abroad, and our sacrifices to make the world a safer place.
- 22 Let us remember that we can do these things not just because of wealth or power, but because of who we are: one nation, under God, indivisible, with liberty and justice for all.
- 23 Thank you. May God bless you. And may God bless the United States of America. (1,265 words)

New Words

sear /sɪə/ *v.*

make very hot and dry, become burned, cause to wither 使……枯萎, 烤焦; 凋谢

hijack /'haɪdʒæk/ *v.*

take control of a plane or other vehicles by force 劫持

collapse /kə'læps/ *v.*

break down, fall apart 崩溃, 倒塌

vicious /'vɪʃəs/ *adj.*

evil; done with evil intent 恶性的, 恶毒的

stride /straɪd/ *n.*

a step in walking or running, significant progress 大步, 阔步

disrupt /dɪs'rʌpt/ *v.*

throw into disorder 使混乱, 使瓦解

capture /'kæptʃə/ *v.*

succeed in catching or seizing, esp. after a chase 俘获, 捕获

affiliate /ə'fɪliət/ *n.*

an organization which is officially connected with another larger organization or is a member of it 附属企业, 分支机构

dismantle /dɪs'mæntl/ *v.*

take apart or tear down 拆除; 废除, 撤销

custody /'kʌstədi/ *n.*

holding by the police, a state of being confined 监管, 羁押

vigilant /'vɪdʒɪl(ə)nt/ <i>adj.</i>	carefully observant or attentive 警惕的, 警觉的
slaughter /'slɔ:tə/ <i>v.</i>	kill a large number of people indiscriminately 大屠杀
exemplify /ɪg'zemplɪfaɪ/ <i>v.</i>	clarify by giving an example of 例证, 例示
waver /'weɪvə/ <i>v.</i>	move back and forth, sway 摇摆, 动摇
prevail /pri'veɪl/ <i>v.</i>	be large in number, quantity, power, status or importance 流行, 盛行; 占优势
fray /frei/ <i>v.</i>	worn by rubbing 磨损

Phrases

bring to justice	arrest someone for a crime and ensure that they are tried in court 绳之以法
take office	assume an office, duty or title 就职, 执政, 当权
weigh on	be oppressive or disheartening to 重压于, 使苦恼

Notes

- Osama bin Laden; the founder of al-Qaeda, the militant extremist organization that claimed responsibility for the September 11 attacks on the U. S., along with numerous other mass-casualty attack against civilian and military targets.
本·拉登, 基地组织的首领, 该组织被认为是全球恐怖组织, 策划并实施了 911 恐怖袭击, 并实施了多起对平民和军事目标的恐怖袭击。
- AL - Qaeda; a global militant Islamist and takfiri organization founded by Osama bin Laden and several other militants in 1988.
阿拉伯语, 意为“Base”, 即基地组织, 成立于 1988 年, 由本·拉登创建, 对从各国来到阿富汗的成员进行恐怖活动训练。
- Twin Towers; The World Trade Center is a complex of buildings, featuring landmark twin towers, which were destroyed in the September 11 attacks of 2001.
美国双子塔, 纽约世贸中心的两座大厦, 是纽约的标志性建筑, 911 事件中遭到飞机袭击倒塌。
- The Pentagon; The Pentagon is the headquarters of the United States Department of Defense, located in Arlington County, Virginia. On September 11, 2001, exactly sixty years after the building's groundbreaking, American Airlines Flight 77 was hijacked and flown into the Western side of the building, killing 189 people.
五角大楼, 美国国防部所在地, 位于弗吉尼亚州的阿灵顿县。2001 年 9 月 11 日, 该楼建成 60 年后, 美国航空公司 77 号航班遭到恐怖分子劫机, 并冲向五角大楼的西侧, 造成 189 人死亡。
- Flight 93; United Airlines Flight 93 was a passenger flight which was hijacked by al-Qaeda on September 11, 2001, as part of the September 11 attacks. After the hijackers took control of the plane, several passengers and flight attendants fought the hijackers in an attempt to gain control of the aircraft. During the attempt, however, the plane crashed into a mine in Pennsylvania. A temporary memorial has stood on the site since the attacks. The first phase of construction of the permanent Flight 93 National Memorial at the crash site was dedicated on September 10, 2011.
911 事件中, 为了避免地面上更大的损失, 被恐怖分子劫持的 93 次航班在很多乘客和机组人员

与恐怖分子的搏斗中坠毁在宾夕法尼亚州。2011年,美国人民集资在飞机坠毁的地点建立了一个永久性公园,纪念乘客和机组人员的英勇行为。

Exercises

I. Questions for comprehension

1. Collect facts and the details in 9/11 terrorist attack.
2. What is President Obama's attitude to Islam and Pakistan respectively?
3. What tone did President Obama hold when he made this speech?
4. What's the Americans' opinion of war in President Obama's speech?
5. Do you think President Obama will be warmly welcomed and supported? What's the purpose of this speech?

II. Vocabulary and structure

A. Choose the definition from Column B that matches each word or phrase in Column A.

A	B
1. collapse	a. evil
2. prevail	b. watchful
3. vicious	c. mixture
4. dismantle	d. surge
5. vigilant	e. associate
6. compound	f. triumph
7. billow	g. extraordinary
8. grief	h. fall
9. affiliate	i. demolish
10. unparalleled	j. heartbreak

B. Choose the synonyms of the underlined words.

1. Some people seem to thrive on the pressure of working under a deadline.
A. render B. evolve C. prevail D. succeed
2. Around 1910, two major schools of experimental psychology began to develop simultaneously.
A. at the same time B. in a like manner
C. confidently D. unexpectedly
3. We are obliged to the teaching staff here for their academic guidance and profound influence.
A. committed B. compelled C. grateful D. respectful
4. The dogs are vigilant, always on the look-out for intruders.
A. alert B. cheerful C. irritated D. loyal
5. Faced with this grim situation, top executives of this company are trying to find quick solutions.
A. unexpected B. undesirable C. comforting D. grave
6. While they were away on vacation, they allowed their mail to accumulate at the post office.
A. be delivered B. pile up C. get lost D. be returned

7. They voted to abolish the office of second vice-president.
A. decorate B. discriminate C. improve D. eliminate
8. In the first five years of reform, the country's GDP soared by almost 40%.
A. suffered B. increased C. sacrificed D. inclined

III. Translation

A. Translate the following sentences into Chinese.

1. Over the last 10 years, thanks to the tireless and heroic work of our military and our counterterrorism professionals, we've made great strides in that effort.
2. And so shortly after taking office, I directed Leon Panetta, the director of the CIA, to make the killing or capture of bin Laden the top priority of our war against al Qaeda, even as we continued our broader efforts to disrupt, dismantle, and defeat his network.
3. I met repeatedly with my national security team as we developed more information about the possibility that we had located bin Laden hiding within a compound deep inside of Pakistan.
4. The American people did not choose this fight. It came to our shores, and started with the senseless slaughter of our citizens.
5. Yet as a country, we will never tolerate our security being threatened, nor stand idly by when our people have been killed. We will be relentless in defense of our citizens and our friends and allies.

B. Translate the following sentences into English, using the words or phrases in the brackets.

1. 警察的职责就是使那些犯法的人受到法律的制裁。(bring... to justice)
2. 我分明感觉到嗓子开始烧得难受。(sear)
3. 这件灾难使他对信仰发生了动摇。(waver in)
4. 有些话语本身不重,但稍一不慎,就会重重地压在别人心上。(weigh on)
5. 抢劫案发生后,他立即被押了起来。(custody)



Unit 2

Culture and Business¹

Stuart Diamond

- 1 Let's look at an example that **involves** a business situation, one that has occurred several times with my students. It **demonstrates** the kind of **incremental** steps and role reversal² necessary to **bridge cultural gaps**.
- 2 You are a smart female graduate of a business school. You have accepted a job as an **associate** in the Tokyo office of a major international consulting firm based in the United States. It's a two-year assignment. You've been to Japan on various trips and speak Japanese pretty well from your studies and visits.
- 3 You are **assigned** to be the main contact with a traditional Japanese manufacturing company. Management and the board of directors³ are all male and very **conservative**. They will have nothing to do with you as a **consultant**. They go around you constantly to your boss, a man. Or they treat you like a secretary. A 2010 report by the World Economic Forum⁴ said women occupy just 24 percent of company jobs in Japan, second lowest only to India with 23 percent, among the twenty-seven major countries studied. And very, very few women are permitted into the corporate **suite**. Many women in the Japanese workforce do **clerical** tasks like serving tea; they are called O.L.'s, or "Office Ladies".
- 4 Your choices are either to mark time in the office for two years, returning to the United States with your career having **advanced** very little, or to do something about it, and shine. If you use the right **negotiation** tools, it will take about six months for you to become a **full-fledged** consultant, respected by the Japanese company.
- 5 Let's first consider how a traditional, all-male Japanese management views a young, bright foreign woman in their midst, **inserted** as an advisor and essentially as an equal. The word that comes to mind is threat. Let's **spell** this **out**. A threat to the established order. A threat to a thousand years of history. A threat to the **cohesion** of society. A threat to tradition. To them, it could easily suggest a **break-up** of the family.
- 6 So getting inside their heads is critically important. You may not like how this kind of inquiry makes some Japanese males **recoil**. But we're here to deal with the real world.
- 7 Of course, their perceptions and their feelings are just where we start our process of changing