大学英语拓展系列教程

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船舶与海洋工程英语

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浙江海洋大学大学英语拓展教程系列之一

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内 容 简 介

本书是浙江海洋大学大学英语拓展教程系列教材之一，是为海洋类专业学生学习完通用大学英语之后、学习专业英语之前的英语拓展学习而编写的教材。

主要内容：包括船舶与海洋工程专业简介、船舶史、船舶类型、船舶设计、船舶制造、船舶结构、船舶安全、船员、船舶下海和近海结构等内容。

本书特色：针对学生的现有水平和未来发展的需求而设计；基础与专业兼顾、学以致用；融知识性、趣味性、实用性于一体；注重个性化学习；时代性强，适用范围广。

适用范围：可作为高等院校船舶专及海洋工程类业的学生用书。

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浙江海洋大学特色教材编委会

总　序

语言是交流的工具、信息的载体。众多语言中，英语无疑是人类生活各个领域中使用最广泛的语言，其重要性在社会生活信息化和经济全球化的过程中日显突出。许多国家都把英语教育纳入了基础教育发展战略，成为公民素质教育的重要组成部分，中国也不例外。在中国，英语被列为基础教育的一门主要课程，与语文数学并列，是一门伴随有志者一生的课程。中高考英语分数比重很高，考研、考博英语必考，托福雅思英语成为出国留学的通行证。而大学英语的学习具有承前启后的衔接功能。学生学好了大学英语，就掌握了通向考研、考博和出国留学的钥匙，从而有机会实现多元学习与价值的目标。

教育部高等学校大学外语教学指导委员会于2015年半年出台了《大学英语教学指南》（征求意见稿）（以下简称《指南》）。它是高校教学改革不断深入的产物，在《指南》中，大学英语课程设定了三级目标体系：基础目标、高级目标和发展目标。“基础目标”是英语入学水平较低的学生应达到的基本要求，“提高目标”是大多数大学生应达到的目标要求，“发展目标”是针对各高校人才培养计划的特殊需要以及学生的能力、需求和兴趣

而提出的多元目标要求。《指南》提出，大学英语课程根据教学内容可分为通用英语（English for General Purposes）、专门用途英语（English for Specific Purposes）和通识教育类英语（English for General Education）三个类别。大学英语教学应实行多模块教学，在教学通用英语（听说读写译）的基础上，增加专门用途英语（学术英语、职业英语或行业英语等）以及人文英语（跨文化交际）等模块，以适合不同专业和不同个体的需求。

大学英语因其涉及面广，影响大，历来是高校教学改革浪潮中的先锋。随着高校教学改革的深化、创新机制的提高，社会对大学英语人才培养也给予新的期待，特色和多元已经成为各高校办学的一种趋势。为了适应高校教学新趋势，响应《指南》提出的大学英语教学要求，我们编写了这套大学英语拓展教程系列，包括《水产英语》《船舶与海洋工程英语》《航运英语》和《人文英语》等四种，以满足海洋类高校不同专业学生拓展英语知识的需要，以期实现学生的“发展目标”。本系列教材旨在突显海洋类高校的办学特色，让学生通过英语拓展课程的学习，顺利过渡到专业英语的学习。因此，我们这套系列教材可以视为通用英语与专业英语的“衔接体”。

《水产英语》是为水产类专业学生完成通用大学英语学习之后，深入专业英语学习之前编写的英语学习教材。本教材内容涉及水产行业各个领域，主要包括：水产史、渔业资源、渔具、渔业环境、水产养殖、海洋生物、鱼病防治、渔业法规、渔业科学和渔业管理与发展等话题，让学生畅游在英语世界里学习水产知识。《船舶与海洋工程英语》是为船舶与海工类专业学生在通用大学英语学习结束之后、深入学习专业英语之前的英语拓展而编写的教材。本教材内容主要包括：船舶与海洋工程专

业简介、船舶史、船舶类型、船舶设计、船舶制造、船舶结构、船舶安全、船员、船舶下海和近海结构等话题。《航运英语》主要面向航运类专业本、专科学生而编写。教材内容涉及航运业的各个领域，主要包括：航运业简介、提单、货运服务、商务合同、商业信函写作、港口国监督、航海日志、进出港、货物装卸、应急救援、甲板安全、海上通信等。《人文英语》主要是为人文社科专业的学生学完了通用大学英语之后而编写的人文英语教程。本教材涉及 12 个单元主题，包括节气、中国传统节日、茶文化、中国著名的旅游景点、体育运动、中国古代人民的时尚生活和服装演变、中国古代教育的演变和科举考试制度、中国的汉字与文房四宝、唐诗宋词的英译学习、古代士大夫的琴棋书画生活、酒文化和中医养生等。

在新形势下，大学英语的教学如果仅仅停留在通用英语上而不与专业有机衔接，是不能适应国家的发展和高校办学国际化趋势的。要使语言发挥其工具性作用，有必要将其与专业结合起来，从而体现语言的载体功能。我们编写这套大学英语拓展教程系列，就是为了海洋类高校各专业学生在完成了通用大学英语学习之后，学习与专业相关的英语科普知识，不仅能巩固和进一步提高英语语言技能，也能在学习语言的同时，增加学生专业知识，可谓“一石二鸟”之功。因此，本教程系列教材的学习有助于促进学生增强实际使用英语的能力。

本教程系列教材兼顾了英语学习的统一性与多样性、自主性与联合性。采用统一的体例，统一的单元数，统一的目的要求，充分体现了海洋类高校的办学特色，将英语的工具性和人文性有机地结合在一起，同时又兼顾通用性。

我们希望学生通过本教程系列教材的学习，在英语的海洋中获取各自所需的更多专业知识，同时又能用英语表达各自的专业知识，让自己的知识水平更高，人生更丰富，世界更精彩，视野更开阔，融入这个全球化的现代社会，使自己真正成为具有国际视野的崭新一代。

大学英语拓展教程系列总主编

陆国飞

2016.4

前　言

随着高校教学改革的深化、创新机制的提高，社会对大学英语人才培养也给予了新的期待，特色和多元已经成为各高校办学的一种趋势。中学英语教学水平的提高和高考英语的改革让“90”后的英语学习者在认知习惯上起了很大的变化。如果大学英语教学仍然停留在通用英语上，而不与专业有机衔接，那么学生就会缺乏英语的实际应用能力，因而不能适应新形势下国家的发展和高校办学国际化的趋势。为此，我们编写了大学英语拓展教程系列，旨在突显海洋类高校的办学特色，让学生通过英语拓展课程的学习，顺利过渡到专业英语的学习，并为继续深造学习或毕业后直接使用英语从事本专业工作打下坚实的基础。因此，这套系列教材可以视为通用英语与专业英语的“中间体”。

《船舶与海洋工程英语》是浙江海洋大学大学英语拓展教程系列中的一本，是为船舶与海工类专业学生在通用大学英语学习结束之后、深入学习专业英语之前的英语拓展而编写的教材。船舶与海工类专业学生在完成通用大学英语学习的基础上，学习船舶与海洋工程专业相关的英语知识，不仅能进一步提高英语语言技能，还能增加船舶与海洋工程专业知识。因此，本课程的学习有助于学生增强实际应用英语的能力。

本教材分为十个单元。每单元设一个主题，内容包括围绕同一主题的两篇课文，第一篇偏重人文综合，第二篇为科普或介绍性专业内容。编写的体例如下：

1. 单元标题
2. 单元简介
3. Text A
4. Text A 课文词汇表
5. Text A 课文注释

6. Text A 课文练习

7. Text B

8. Text B 课文词汇表

9. Text B 课文注释

10. Text B 课文练习

每篇课文都标有段落号，生词表按照词汇在课文中出现的先后顺序编排，方便学生阅读或做练习时查阅，Text A 的练习设计旨在帮助学生巩固本课词汇和内容，题型包括：（1）正误判断；（2）问题解答；（3）词语填空；（4）运用本课所学词语进行单句翻译；（5）词汇巩固练习；（6）英语段落汉译；（7）话题讨论；（8）写作等。Text B 的练习设计旨在培养学生阅读理解能力，主要包括：（1）问题解答；（2）选择题或思考题等。书后附有本册教材的词汇总表，并标出每个单词所在的单元与课文。

本教材课文材料主要选自英语国家的专题网站有关船舶与海洋工程领域的普及性知识，并经过编者的改写而成，语言通俗地道，内容主要包括：船舶与海洋工程专业简介、船海史、船舶类型、船舶设计、船舶制造、船舶结构、船舶安全、船员、船舶下海和近海结构等话题，让学生畅游在英语世界里学习船舶与海洋工程知识，可谓“一石二鸟”。

本教材共有六位教师参与编写，第一单元由尹景书编写；第二、九单元由杭亚静编写；第三、六单元由李怡慧编写；第四、七单元由张玲编写；第五、八单元由郭岚编写；第十单元由屠丽华编写。

在本教材的编写过程中，我们始终得到了浙江海洋大学校领导和教务处的指导与关心，在此，我们谨向他们表示由衷的感谢。

由于时间仓促，加上水平有限，本教材难免存在这样那样的问题，我们真诚希望同行专家和广大师生批评指正。

本书所刊载的部分文字来源于网络，无法一一指明出处，在此特向原作者致谢。

编者

2016 年 4 月

Contents

Unit One Marine Engineering and Shipbuilding

This unit will help students to know:

- New changes and development in global shipbuilding;
- Education, tasks, qualities, advancement, etc. of marine engineers and naval architects

Pre-reading

Before reading the passage, work with your partner to discuss the following questions:

1. How to improve the shipbuilding with the advanced technologies?
2. What benefits do you think the development of the shipbuilding can bring us?

Text A

Trends in Global Shipbuilding

by Nazery Khalid/Baird Maritime

"*The future will be determined in part by happenings that it is impossible to foresee.It will also be influenced by trends that are now existent and observable*" （Emily Greene Balch）

Shipbuilding: An important economic activity

1 The global shipbuilding industry was estimated to value an **astounding** US$100 billion, according to a Bloomberg report dated December 2006.

2 This should not come as a surprise considering that an estimated 80 percent of the world's trade （by volume） is carried in whole or in part by **seaborne** transport （UNCTAD[1], 2009）.

3 In addition, vessels of all kinds **ply** the world's waterways to undertake and facilitate **a** stunning **array of** activities. These include the transportation of cargos, **dredging**, search and rescue, environmental clean-up, oil and gas exploration and production, cable and pipe-laying, scientific research, fisheries, project construction, tourism, naval warfare and patrols, **among many others**.

4 Shipbuilding is a crucial activity that provides **equilibrium** between the demand and supply in the merchant shipping **sector**. When demand for a particular type of cargo is

high, the demand for the ship carrying that cargo will rise **in correspondence**. Owners and operators of vessels in that trade will place orders at shipyards specialising in building that type of ship, and shipyards will **crank up** production to build those ships.

5 Given the demand-derived nature of shipping, it can be said that it presents a fair representation of the state of health of the global economy and trade.

6 **On the same account**, the shipbuilding industry also provides a similarly reliable **testimony** to the global economic and trade performance. There is indeed a strong and direct **correlation** between the performance of shipbuilding and the global economy and trade. Shipbuilding activities rise when global trade and economy grow. Likewise, shipbuilding will be among the first activities to suffer when trade **slumps** and the economy **stutters**. This puts shipbuilding at the forefront of one of the world's key and most important economic activities, and a reliable **barometer** of economic performance.

The shift to the east

7 Prior to the emergence of Korean and Japanese shipyards after World War II, European yards dominated the world shipbuilding industry. Post-war, the world's biggest ships were built in yards in Newcastle （England） and on the Clyde （Scotland）.

8 While shipbuilding still exists in Europe, yards there are focusing more on the so-called Lexus-class vessels such as chemical tankers, offshore support vessels （OSVs）, **seismic** vessels and warships and cruise ships.

9 For example, BAE in England specialises in building naval ships, while Aker Yards （now STX Europe[2]） in Norway focuses on building cruise and ice-class ships plus a variety of OSVs.

10 During the height of the newbuilding **frenzy** prior to the current global economic downturn, there was an **upsurge** in demand for **berths** in European yards which had previously lost out to Asian yards.

11 This was a result of the **spillover** from Asian yards which could not cope with tremendous global demand for new tonnage. European yards have **conceded** that they could not compete with the low labour and land costs and economies of scale that yards in Asia enjoy, but the former still commands a reasonable percentage of the world orderbook of more technically sophisticated vessels.

12 A noticeable trend in global shipbuilding in the last two decades or so is the

emergence of yards in developing nations.

13 China has emerged as a serious player in certain sectors such as in **bulk**, gas and container. The emergence of yards in India, Vietnam and Malaysia focusing on small and medium-sized vessels and even **catering for** the export markets has also been noticeable. They enjoy healthy orderbooks and even produce for export markets.

14 Some have even benefited from **alliances** with more established international shipbuilders who offer better technologies and processes that have helped improve the former's productivity, efficiency and product/service offerings.

15 As a result of the shipbuilding boom in developing countries, investments from established foreign yards have poured in. For example, STX has invested significantly in its yards in Malaysia, the Philippines, Indonesia and Vietnam.

16 This provides testimony to the growing attraction of the shipbuilding sector in developing nations which enjoy low cost of production, growing demand for shipping services and economies of scale.

17 More shipping companies are buying into shipyards to control their supply chain better and to create **synergy**. One such example is MISC's purchase of MMHE[3], Malaysia's biggest yard, to **align** the energy carrier's business **with** the yards' capacity in building offshore structures and vessels to serve the offshore oil and gas industry.

The big gets bigger

18 Another **unmistakable** trend is the increased order for bigger and more sophisticated vessels. The pursuit of economies of scale has driven owners to order bigger ships to **capitalise** on booming global seaborne trade.

19 Bigger volume of cargos transported leads to lower cost per unit to transport them, leading to a **virtuous** cycle all around for the various parties along the maritime supply chain.

20 In the container sector, ships with larger capacity are continuously being built. Several 11,000 plus TEU[4] vessels are already in operation, while orders have been placed for 14,000TEU vessels. A 16,000TEU **behemoth** is already on the design board at Samsung, one of Korea's and the world's top yards.

21 Shipping analysts have even visualized the construction of an ultra large container vessel with an astounding capacity of 22,000TEU as technically possible.

22 In the tanker trade, the biggest **ULCC** is a **whopping** 550,000**DWT** behemoth. Amazingly, vessels of this capacity require only a small number of crew to man. A typical gas tanker in the Aframax[5] class （oil tanker smaller than 120,000DWT and with a breadth above 32.3 metres） merely requires a crew of 15 to sail, thanks to its advanced ship features and sophisticated onboard electronics and equipment.

23 In the passenger ship category, the construction of giant cruise ships that can carry passengers has been planned.

24 Royal Caribbean International has ordered from STX Europe, a passenger ship that can **accommodate** 6,400 passengers, the largest in the world **to date**. If that is not impressive enough, another giant cruise ship, 'Princess Kaguya' that can carry 8,400 passengers has been conceptualised by Japan Contents Network.

Green and clean

25 New generation of OSVs powered by gas and equipped with Dynamic Positioning capabilities and tremendous **bollard pull** have been built to be **deployed** at harsh deepwater sites. **ROV**s with state of the art technologies have also being built to assist in offshore oil and gas exploration and production. Then there are also **FSO**, **FPSO** and **FLNG** that incorporate **ingenuous** design and impressive features that can fit onto limited space on board. In addition to vessels, yards are also building all types of offshore structures including rigs, platforms, **topsides**, jackets and drills to be deployed in offshore sites.

26 There is also a growing trend to build eco-friendly ships in line with rising awareness to reduce green house gas emissions from vessels. Shipyards are also giving greater focus on "green **logistics**" to reduce wastage and pollution along their supply chain. With the growing emphasis on green shipping, shipyards are expected to step to the plate and work closely with ship owners and equipment manufacturers to come up with energy-efficient ships.

Shipbuilding makes the world go round

27 Trends in shipbuilding reflect the production, consumption and transportation patterns of the cargos that ships carry, and the **dynamics** of the activities and markets they serve.

28 Observing these trends provides a fascinating glimpse into the dynamics of trade, economies, industries, technologies, financing and many other aspects of life.

29 As an economic activity, shipbuilding has a far reaching impact on shipping, trade and the economy.

30 The number and size of ships built at shipyards dictate the supply of tonnage for a particular type of shipping trade, hence influence freight and charter rates of those ships. This eventually becomes a determining factor in the prices of those cargos and of other goods and services whose production depends on those cargoes.

31 This **underscores** the immense importance of shipbuilding and its **pivotal** role in facilitating trade and economic activities. Shipbuilding is truly a **bellwether** activity that provides rich **indicators** of various trends of a world in **flux**.（1,345words）

（The text is retrieved from http://www.bairdmaritime.com/index.php?option=com_content&view=article&id=5690:trends- in-global-shipbuilding&catid=98:full-speed-ahead&Itemid=122 2014-08-08 11：25）

New Words

astounding *adj.* 使人惊骇的；令人震惊的
seaborne *adj.* 海上运输的；漂流的
ply *vt.* 使用，不住地使用；从事 *vi.* 辛勤工作；定期地来往（船、车等）
dredging *n.* 挖泥；清淤 *v.* 疏浚；挖掘（dredge 的 ing 形式）
equilibrium *n.*. 均衡；平静；保持平衡的能力 [复数 equilibria 或 equilibriums]
sector *n.* 部门
testimony *n.* [法] 证词，证言；证据
correlation *n.* [数] 相关，关联；相互关系
slump *vi.* 下降，衰落；倒下；大幅度下降，暴跌
stutter *vi.* 口吃，（喻）有困难 economy stutters 经济出现问题
barometer *n.* [比喻]晴雨表，反映或预示变化的事物，变化的标志
seismic *adj.* 地震的；因地震而引起的 ~vessel 震波勘测船；地震勘探船
frenzy *n.* 狂暴；狂怒；暴怒
upsurge *n.*增长，急剧上升；高涨，高潮
berth *n.* 停泊处，锚位
concede *vt.* 承认；退让
bulk *n.* 散装