



高职高专工程造价专业系列规划教材

GONGCHENG ZAOJIA YINGYU

# 工程造价英语

陈静 ©主编



电子工业出版社

PUBLISHING HOUSE OF ELECTRONICS INDUSTRY  
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北京 • BEIJING

## 内 容 简 介

在我国建筑业与国际接轨和国内国际工程日益增多的背景下,本书全面介绍了工程造价专业的发展趋势和工程造价在投标报价、成本管理、合同管理、索赔管理等方面的国际工程管理惯例,有利于读者掌握工程造价管理专业英语,熟悉工程造价国际惯例。全书以项目案例为基础,每单元均有课文注释、课后阅读理解、词汇练习和口语练习等内容,可满足教学和自学的需要。

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# 前 言

在世界经济全球化与一体化的背景下，我国不断加强建筑市场对外开放。在建筑业“走出去”战略的指导下，越来越多的建筑企业加大国际建筑市场的开拓力度，加之国内的国际工程日益增多，工程造价管理的国际化已成为当务之急。了解国际工程造价管理发展趋势、掌握工程造价管理专业英语、熟悉工程造价管理国际惯例，有利于我国建筑业在国际化背景下与国际接轨，有利于提高工程造价管理质量，有利于增强建筑企业的国际竞争能力，对提高工程造价质量具有重要的现实意义。

为了满足工程建设领域和高职高专院校工程管理专业、工程造价专业及相关专业培养目标的需要，编者结合多年的教学经验，撰写了这本《工程造价英语》，力求全面介绍工程造价专业发展趋势和国际惯例，使读者全面提高工程造价专业英语的阅读、交流与写作能力。本书以项目案例为基础，介绍了工程造价专业的发展趋势，造价师的主要职责，以及工程造价在投标报价、成本管理、合同管理、索赔管理等方面的国际工程管理惯例，并对国外的造价管理前沿进行了介绍。本书对各单元内容进行了精心设计，配有课文注释、课后阅读理解、

词汇练习、口语练习和非常实用的课外阅读材料，以求全面开发学生的学习主动性，并要求教师实施主动性教学模式。

本书主要面向工程造价专业、工程管理专业及相关专业的学生，同时兼顾了国际工程建设相关人员对国际工程造价管理知识的需求，因而具有较广泛的适用性。

本书由陈静担任主编，负责内容选编、总纂定稿。各单元具体分工为：第1、2单元由于晓林执笔，第3~5单元由张睿执笔，第6~8单元由陈静执笔。

本书在编写过程中，参考并借鉴了国内外大量同类教材、论著等研究成果，直接或间接引用了参考文献所列书目中的部分内容，在此表示诚挚的谢意。本书的编写工作得到了李锦华教授的大力支持，在此表示衷心的感谢！

由于作者水平有限，书中难免存在诸多不足，恳请读者批评指正。

编 者

# 目 录

<b>Unit 1</b>	<b>Quantity Surveyor in Australia</b>	<b>1</b>
<b>Text</b>		<b>1</b>
New Words, Expressions		6
Notes		8
Exercises		9
<b>Reading Materials</b>		<b>12</b>
Reading Material A	Brief History of Quantity Surveying	12
Reading Material B	Just What does a Quantity Surveyor do?	14
<b>Unit 2</b>	<b>The Role of Consultants in PFI Projects</b>	<b>18</b>
<b>Text</b>		<b>18</b>
New Words, Expressions		25
Notes		27
Exercises		29

<b>Reading Materials</b> .....	32
Reading Material A Building Procurement .....	32
Reading Material B Invitation to Apply for Eligibility and to Bid .....	37
<b>Unit 3 Types of Bids and Contracts</b> .....	40
<b>Text</b> .....	40
New Words, Expressions .....	44
Notes .....	45
Exercises .....	47
<b>Reading Materials</b> .....	50
Reading Material A Unit-price Contract .....	50
Reading Material B Tender Form .....	53
<b>Unit 4 Estimating, Bidding and Costs</b> .....	58
<b>Text</b> .....	58
New Words, Expressions .....	63
Notes .....	65
Exercises .....	66
<b>Reading Materials</b> .....	68
Reading Material A Familiarization with Project Characteristics .....	68
Reading Material B Detailed Estimates (I) .....	73
<b>Unit 5 Cost Management I</b> .....	78
<b>Text</b> .....	78

New Words, Expressions .....	84
Notes .....	86
Exercises .....	88
<b>Reading Materials</b> .....	90
Reading Material A Detailed Estimates (II) .....	90
Reading Material B Detailed Estimates (III) .....	93
<b>Unit 6 Cost Management II</b> .....	99
<b>Text</b> .....	99
New Words, Expressions .....	104
Notes .....	105
Exercises .....	107
<b>Reading Materials</b> .....	109
Reading Material A Risk and Insurance .....	109
Reading Material B Insurances .....	113
<b>Unit 7 Contract Condition</b> .....	119
<b>Text</b> .....	119
New Words, Expressions .....	125
Notes .....	126
Exercises .....	127
<b>Reading Material</b> .....	130
Reading Material A Subcontract Conditions .....	130
Reading Material B Particular Conditions of Subcontract .....	135



<b>Unit 8 Claim Management</b> .....	139
<b>Text</b> .....	139
New Words, Expressions .....	147
Notes .....	149
Exercises .....	150
<b>Reading Materials</b> .....	153
Reading Material A   Useful for the Parties and those Who Practice Arbitration .....	153
Reading Material B   Examples of Practical Difficulties Encountered by a DRB .....	155
<b>参考文献</b> .....	158

# Unit 1

## Quantity Surveyor in Australia



### Text

#### ■ Job Description

Quantity Surveyors have usually completed an appropriate tertiary degree course and undertaken the work experience which qualify them for membership of the Australian Institute of Quantity Surveyors. TAFE Certificates and Diplomas qualify technicians who assist Quantity Surveyors in the office or on site, where they may specialize in particular aspects of the profession.

Quantity Surveyors work on projects ranging from office blocks, schools, hospitals, factories to bridges, railways, oil and mining development, shipbuilding and large process engineering works such as oil refineries. Anywhere, indeed, that major construction work is carried out. The Quantity Surveyor, also known as a

Construction Economist or Cost Manager, is one of a team of professional advisers to the construction industry. Quantity Surveyors estimate all costs associated with construction projects. Most of their time is spent looking at building plans and quantifying the amount and price of construction materials.

After Quantity Surveyors have estimated the cost of a construction, they establish a budget and examine whether the proposed construction methods will be economical and suitable. They do this by examining architectural and engineering drawings and specifications. Then, they prepare Bill of Quantities which lists in detail all the individual work components of the project. Any change in the design or cost of these will be monitored throughout the construction phase.

As advisers, they estimate and monitor the construction costs, from the feasibility stage of a project through to the completion of the construction period. After construction, they may be involved with tax depreciation schedules, replacement cost estimation for insurance purposes and, if necessary, mediation and arbitration.

Quantity Surveyors are employed predominantly on major building and construction projects as consultants to the owner, in both public and private sectors. They may also work as academics in the building and construction disciplines and in financial institutions, with developer and as project manager.

Quantity Surveyors work closely with architects, financiers, engineers, contractors, suppliers, project owners, accountants, insurance underwriters, solicitors, courts and all levels of government authorities.

Quantity Surveyors get their name from the Bill of Quantities, a document which itemises the quantities of materials and labour in a construction project. This is measured from design drawings, to be used by the contractors for tendering, for progress payments, for variations and changes and ultimately for statistics, taxation and valuation.

At the feasibility stage, Quantity Surveyors use their knowledge of construction methods and costs to advise the owner on the most economical way of achieving his requirements. Quantity Surveyors may use techniques such as cost planning, estimating, cost analysis, cost-in-use studies and value management to establish a project budget.

During design, the Quantity Surveyor ensure that the design remains on budget through cost management. Essential additions are offset by identified other savings.

On completion of design and drawings, the Quantity Surveyor may prepare a Bill of Quantities, which is issued with the specification, for use by contractors in submitting tenders. The contractor's Quantity Surveyors/estimators generally prepare tenders, and may price alternatives for consideration.

The Quantity Surveyor is usually involved in assessing tenders and may also have been asked to advise on the type of contract or special clauses in it.

During construction, Quantity Surveyors are called on to fairly value progress payments at regular intervals. They will also value changes to design or quantities which may arise by reference to appropriate Bill of Quantities rates. The contractor's Quantity Surveyor or contract administrator will have prepared claims for progress

payments and additional work.

When construction is completed, the Quantity Surveyor can produce depreciation schedules of various project components and advise on realistic insurance replacement costs. In the case of construction disputes, the Quantity Surveyor is often called on as an expert witness, and some Quantity Surveyors act as arbitrators. Both contractor's and owner's Quantity Surveyors will be involved in this.

In addition to new projects, Quantity Surveyors also use their skills in refurbishment of old buildings, alterations to existing buildings and insurance replacement estimates. In public authorities they maintain cost statistics on a state or nation-wide basis, and there are opportunities for academic careers in the building disciplines.

Quantity Surveyors work in the private sector with consulting firms, in the public sector mainly with the State Government Departments/Authorities and the Australian Construction Service, and increasingly with building contractors, financiers, property developers, project managers and universities.

## ■ QS Services

### **Financial Advisor**

- prepares budgets for building projects
- advises on the effects of quality to the budget

- prepares contract documentation (such as Bills of Quantities and Cost Control Documents)
- recommends contract type and delivery process to achieve time and budget
- prepares tax depreciation calculations

### **Construction Advisor**

- advises on the cost of alternative materials
- advises on the cost of construction methods
- advises on the effect of site conditions on budget
- advises on the feasibility of different sites

### **Contract Administrator**

- advises on matters between client and architect or consultants
- advises on matters between client and contractor or project manager
- advises on contract interpretation, payments, changes in scope of works, variations, claims and final accounts

### **The Independent Quantity Surveyor**

- impartial advise
- honest broker
- achieves value for money
- manages the budget and controls cost
- achieves a quality product
- satisfies the client

### ■ QS Skills

In addition to technical proficiency in maths and financial accounting, Quantity Surveyors need good communication skills and the ability to work closely with others. They work closely and regularly with architects, engineers, clients, builders and contractors.

They must also have an understanding of the laws that govern construction contracts, the construction process, and the cost and types of materials used. Reading and examining building plans is a significant component of a Quantity Surveyor's work, therefore, the capacity for intense concentration over long periods is critical, and quick and reliable judgments for handling any necessary change is a must.

By the way, if you are afraid of heights, you will have to overcome your fears. You might find yourself inspecting the roof of a 50-storey building that is still being constructed.

### New Words, Expressions

estimate *vt.* 估计, 预算, 估价 *n.* 估价, 预算

quantify *vt.* 确定……的数量, 表示……的数量; 用数量表示 (使量化)

budget *n.* 预算, 预算表 *v.* 编制预算, 安排预算

specification *n.* 详细说明; 分类; [pl.] 清单; 计划书; 规范, 技术说明

depreciation *n.* 跌价, 减价, 贬值; 折旧; 损耗

mediation *n.* 调停, 调解, 仲裁

arbitration *n.* 仲裁, 公断

predominantly *ad.* 主要地, 显著地, 大多数地, 突出地

sector *n.* 部分; 成分; 部门

developer *n.* 开发商

contractor *n.* 承包商

supplier *n.* 供货商

owner *n.* 业主, 物主

itemise *vt.* 分条细列, 详列

tender *n.* 投标 *vt.* 提出

offset *vt.* 弥补, 抵消

claim *n.* 索赔

refurbishment *n.* 整修, 翻新

delivery *n.* 交付, 交货

alternative *adj.* 选择性的, 二中择一的

site *n.* 现场; 位置

impartial *adj.* 公平的; 平等相待的; 无私的, 无偏见的

broker *n.* (股票债券等的) 经纪人; (买卖的) 中间人, 代理人

proficiency *n.* 熟练, 精通

govern *vt.* 管理; 控制; 约束; 影响

underwriter *n.* 保险商; (股份、公债等的) 承购人; 证券包销人

feasibility stage 可行性研究阶段



construction method 施工方案, 施工组织设计

bill of quantities 工程量清单

completion of the construction period 竣工

replacement cost 重置成本

building and construction discipline 建筑与施工业

project manager 项目经理

insurance underwriter 保险商, 保险公司

progress payment 进度付款

variation and change 变更

cost planning 成本计划

cost analysis 成本分析

cost management 成本管理

submit tenders 递交标书

scope of works 工程范围

### Notes

1. This is measured from design drawings, to be used by the contractors for tendering, for progress payments, for variations and changes and ultimately for statistics, taxation and valuation.

工程量清单根据设计图纸进行计量。承包商将工程量清单用于投标、进度付款和工程量变更,并最终用于统计、计税和价值估计。