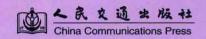


建筑工程技术专业

土木应用英语

主 编/黄蜀云 副主编/周 策 陈 娜 主 审/张 伟

Guidance-Book For Civil Engineering English



国家示范性高等职业院校优质核心课程改革教材

土木应用英语

建筑材料。施工方法、施工组织、进术文件及 PPT 设备、分别介绍了建立总型编码基据能力。

主 编 黄蜀云副主编 周 策 陈 娜 主 审 张 伟

常州大学山书师藏书章

内 容 提 要

本书是国家示范性高等职业院校优质核心课程改革教材。全书共9个模块,以涉外土木工程项目工作任务为主线,即学习土木工程专业英语的核心能力、桥梁工程、道路工程、建筑结构、建筑材料、施工方法、施工图纸、技术文件及 PPT 演示,分别介绍了学生应掌握的英语能力。

本书可用作高等职业院校建筑工程技术专业学生教材,也可作为相关专业学生的学习参考用书。

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序 Su

为贯彻教育部、财政部《关于实施国家示范性高等职业院校建设计划,加快高等职业教育改革与发展的意见》(教高【2006】14号)和《关于全面提高高等职业教育教学质量的若干意见》(教高【2006】16号)精神,作为国家示范性高等职业院校建设单位,我院从2007年开始组织探索如何设计开发既能体现职业教育类型特点,又能满足高等教育层次需求的专业课程体系和教学方法。三年来,我们先后邀请了多名国内外职业教育专家,组织进行了现代职业技术教育理论系统学习和职业技术教育课程开发方法系统的培训;在课程开发专家团队指导下,按照"行业分析,典型工作任务,行动领域,学习领域"的开发思路,以职业分析为依据,以培养职业行动能力为核心,对传统的学科式专业课程进行解构和重构,形成了以学习领域课程结构为特征的专业核心课程体系;与企业专业技术人员共同组成课程开发团队,按照企业全程参与的建设模式、基于工作过程系统化的建设思路,完成了10个重点建设专业(4个为中央财政支持的重点建设专业)核心课程的学材、电子资源、试题库、网络课程和生产问题资源库等内容的建设和完善。在课程建设方面取得了丰厚的成果。

对示范院校建设工程而言,重点专业建设是龙头;在专业建设项目中,课程建设是关键。职业教育的课程改革是一项长期艰苦的工作,它不是片面的课程内容的解构和重构,必须以人才培养模式创新为核心,实训条件的改善、实训项目的开发、教学方法的变革、双师结构教师团队的建设等一系列条件为支撑。三年来,我们以课程改革为抓手,力图实现全面的建设和提升;在推动课程改革中秉承"片面地借鉴,不如全面地学习",全面地学习和借鉴,认真地研究和实践;始终追求如何在课程建设方面做出中国特色,做出四川特色,做出交通特色。

历经1000多个日日夜夜的辛劳,面对包含了我们教师团队心血,即将破茧的课程建设成果的陆续出版,感到几分欣慰;面对国际日益激烈的经济的竞争,面对我国交通现代化建设的巨大需求,感到肩上的压力倍增。路漫漫其修远兮,吾将上下而求索!希望更多的人来加入我们这个团结、奋进、开拓、进取的团队,取得更多更好的成果。

在这些教材的编写过程中,相关企业的专家给予了很多的支持与帮助,在此谨表示衷心的感谢!

四川交通职业技术学院院长

Frank

2010 年 11.月

前言

随着经济全球化的迅速发展和国家"走出去"战略的实施,我国对外承包工程规模日益扩大,市场多元化体系已经形成,合作领域不断拓宽,国际竞争力明显增强。未来5~15年,是我国大力发展对外承包工程的重要战略机遇期,随着促进政策体系的不断完善和外部环境的优化,我国的对外承包工程面临着广阔的发展前景。同时,随着改革开放和全球市场化进程不断加速、国际交流的加深,涉外工程和工程咨询业务日益繁荣,外资引入项目中,越来越多的子业主与世行发生直接的业务联系,这就需要相应的人才。

近年来,在国家大力发展职业教育的方针指引下,我国高等职业教育蓬勃发展。高等职业教育的办学方式是"以服务为宗旨,以就业为指导",采用"工学结合"的培养模式,实现培养技术、生产、管理和服务第一线的高级技能人才的目标。因此,高职院校的课程必须反映职业岗位对人才的要求以及学生未来发展的要求。英语作为高职院校一门重要的必修课,长期以来一直被看作是孤立的公共基础课,所教授的内容未能与学生未来的职业有效结合,很难满足工作岗位的需要。

未来顺应国家大力发展职业教育、培养高素质人的时代要求,推动高职学院专门用途 英语教学改革,我们通过广泛调研与充分研讨,在深入了解土木工程建设相关单位要求的 基础上,精心开发了土木应用英语学材,以"工学结合、能力为本"教育理念为指导,以培养 学生从事涉外土木工程项目的基本能力。

本学材的特色是:

- 1. 课程依据土木类专业人才培养方案和涉外土木工程项目典型工作任务进行开发。 课程内容突出对学生职业能力的训练,理论知识的选取紧紧围绕工作任务完成的需要来 进行,同时又充分考虑了高等职业教育对理论知识学习的需要,学习模块设计以涉外土木 工程项目工作任务为线索来进行。教学过程中,注重学生实际动手能力的培养,以操练为 主,给学生提供丰富的实践机会,突出高职特色。
- 2. 打破以系统知识传授为主要特征的传统学科课程模式,突破传统课堂限制;突出以学生为中心,以工作任务为导向的工学结合职业能力训练模式,促进综合职业能力发展。
- 3. 基于高职学生智力类型,单元模块设计先易后难;实践活动基于真实工作岗位的典型工作任务设计循序渐进展开。
 - 4. 考核采用多种形式,包括小组与个人结合、实训与理论结合的考核方式。

编 者 2010年11月

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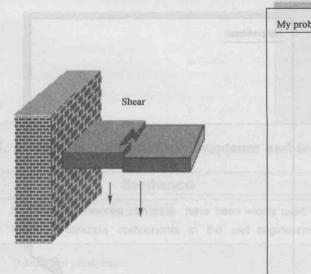
Guidance-Book for Civil Engineering English

Theme 1 Core Ability to Learn Civil Engineering English

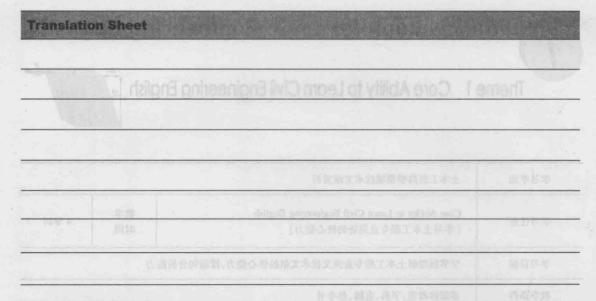
学习单元	土木工程典型领域技术文献赏析		
学习任务	Core Ability to Learn Civil Engineering English [学习土木工程专业英语的核心能力]	教学时间	4 学时
学习目标	▽掌握理解土木工程专业英文技术文献的核心能力,即语句分析	能力	
教学条件	多媒体教室、字典、电脑、参考书		

1. Read the following short passage related to shearing stress, and make a list of your problems for understanding. Finally translate it into Chinese in the translation sheet.

In addition to forces that cause compressive and tensile stresses, another force is at work, namely the shearing force, which causes shearing stress. The shearing force might occur in a vertical plane, but it also might run along the axial direction of the beam, the neutral plane, where there is neither tension nor compression.





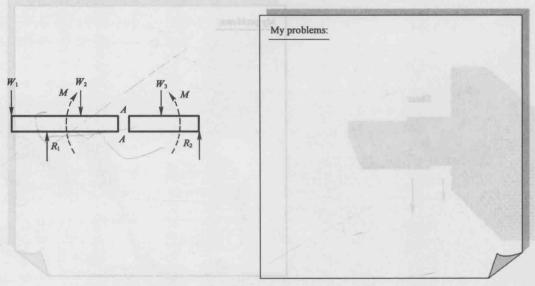


2. Read the following short passage, related to bending moment. And make a list of your problems for understanding. Finally translate it into Chinese in the translation sheet.

In a similar manner it can be seen that if the Bending moments (BM) of the forces to the left of AA are clockwise then the bending moment of the forces to the right of AA must be anticlockwise.

Bending Moment at AA is defined as the algebraic sum of the moments about the section of all forces acting on either side of the section. Bending moments are considered positive when the moment on the left portion is clockwise and on the right anticlockwise.

This is referred to as a sagging bending moment as it tends to make the beam concave upwards at AA. A negative bending moment is termed hogging.



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engineering in English		
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4. Locate the subject of each sentence and translate it.

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Sentence Sentence	Subject		
Now the prestressed concrete have been widely used to many kinds of concrete components in the civil engineering.	the prestressed concrete		
Translated sentence:	and sand with Portund cen		

But If the roads, including the weight of this walls, are

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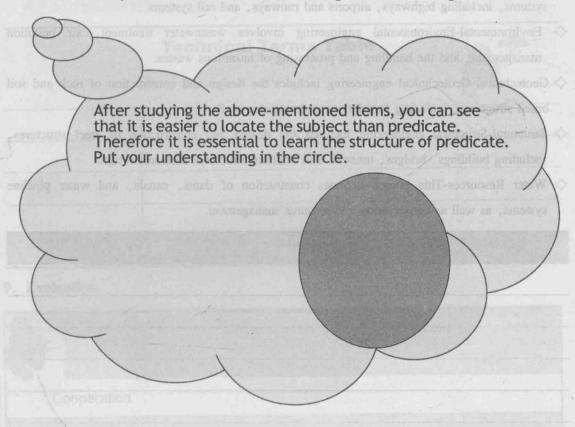
But if the loads, including the weight of the walls, are carried by structural frame consisting of columns, beams and girders, the building is called skeleton construction.	
Translated sentence:	
The ability of roads to enable traffic to flow freely and safely	
between the industrial and commercial centers contributes	
enormously towards a progressive economy.	
Translated sentence:	
The earliest beam bridges were simple logs that sat across streams and similar simple structures.	
Translated sentence:	
As far as I know, concrete is a mixture of water , gravel and sand with Portland cement	Shark-pate tindecaland angherahig in Kinglisho
Translated sentence:	

5. Locate the predicate of each sentence and translate it.



Sentence	Predicate
Now the prestressed concretes have been widely used to many kinds of concrete components in the civil engineering.	have been widely used
But if the loads, including the weight of the walls, are carried by structural frame consisting of columns, beams and girders, the building is called skeleton construction.	
The ability of roads to enable traffic to flow freely and safely between the industrial and commercial centers contributes enormously towards a progressive economy.	Locate the subject of
The earliest beam bridges were simple logs that sat across streams and similar simple structures.	armed beskertaing all hort
As far as I know, concrete is a mixture of water , gravel and sand with Portland cement	lungs of concerns perspend

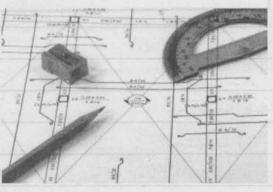
6. Discuss with your team - members how the predicate is composed of.



7. Underline the basic sentence structure of each sentence contained in the following passage and translate it.

Civil engineering is one of the oldest of the engineering professions. Ancient feats such as the building of the Egyptian pyramids and Roman road systems are based on civil engineering principles.

Civil engineers can be found in all areas of society from small private contractors to muni-cipal agencies, federal government organiz-ations, and the military. One of the largest civil engineering organizations in the United States is the Army Corps of Engineers, which despite its name is a primarily civilian organi-zation focused on the development of



canals, locks, and dams; flood control, and other public works projects.

Some of the branches of civil engineering include:

\Diamond	Transportation-This	branch of	civil	engineering	is	concerned	with	developing	transportation
	systems, including	highways,	airpoi	ts and runwa	ys.	, and rail s	ystem	s.	

- Environmental-Environmental engineering involves wastewater treatment, air pollution management, and the handling and processing of hazardous wastes.
- ♦ Geotechnical-Geotechnical engineering includes the design and construction of rock and soil based structures, including foundations and retaining walls.
- ♦ Structural-Structural engineering includes the design and construction of steel structures, including buildings, bridges, tunnels, and offshore structures such as oil rigs.
- ♦ Water Resources-This branch includes construction of dams, canals, and water pipeline

L. Locate the predicule of such	A CONTRACTOR OF THE PARTY OF TH
each sentence contained in the	I. Underline the basic sentence structure of a
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meny kinds of contrate contrate contrate in a summer contrate in the same of t	Civil engineering is one of the oldest of the engineering building of the Egyptian pyramids and koman road syndicioles Civil engineers can be found in all afters of society from small private commentures to must alpair agents and agents and the society from small private commentures and agents when the same commentures are societies after the same and the societies of the same and the sa
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8. Put all the terms you can find from the unit into the box.

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9. Evaluation

Evaluated Items		Self-eva	aluation		Eval	uation	by Teac	her
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Cooperation								
Attitude								42.2
Pre-class preparation	in the	Pallet	Materia	L	1000 1000 1000	750, 00.		
Question-answering								
Translation								
		ma	1.10 m					

Guidance-Book for Civil Engineering English

Theme 2 Bridge Engineering



Over the Bridges Realt

学习单元	土木工程典型领域技术文献赏析		
学习任务		效学 計间	2 学时
学习目标	▽掌握 30 个左右桥梁工程专业英语词汇 ▽熟悉句子分析方法 ▽熟悉对等译法、具体译法、抽象译法及词类转换等翻译方法的具体运用 ▽巩固桥梁工程相关的科普知识		Evolue
教学条件	多媒体教室、【字典、电脑、参考书】(自带)	with 1	
名或小组成员			Y

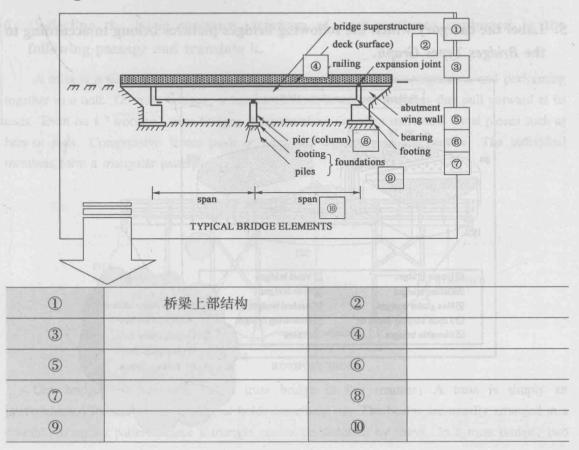
1. Present all the materials about bridges you have prepared before class.

	【Material Patterns】						
[Items]	[Text]	【Picture】	[Video]	[Others]			
				AC 3211 54			

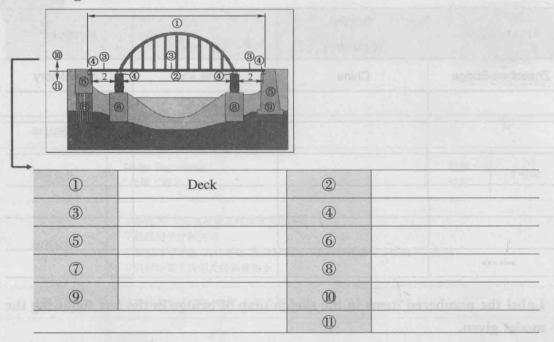
2. Make a list of more than 5 bridges that you favor and discuss the reasons why you love them.

Origin (Country)	Туре	Reasons
China	Stone arch	Long history
		(Country)

3. Label the numbered items in the sketch map of bridge in the box following the model given.



4. Label the numbered items in the sketch map of bridge in the box following the model given.



5. Label the category which the following bridges pictures belong to according to the *Bridges Types Graph*.

