

土木工程专业（英文授课）留学生本科培养方案-(秋季入学)

(专业代码: 080703)

一、培养目标

1.本专业培养适应现代土木工程发展需要,德智体全面发展,获得土木工程师基本训练,毕业后能从事有关土木工程的勘察、设计、施工、管理、教育等方面工作的高级土木工程师和高素质管理人才。

2.熟悉中国历史、地理、社会、经济等中国国情和文化基本知识,理解中国社会主流价值观和公共道德观念。

3.毕业时中文能力应当达到《国际汉语能力标准》四级水平。

4.在本学科领域中具有一定的国际视野,能够在多个国家的实际环境中运用和发展本学科的知识、技能和方法,并具备参与国际交流与合作的初步能力。

二、业务要求

毕业生应获得以下几方面的知识和能力:

1. 具有数学、物理、化学、力学和地质学的扎实基础,基本掌握汉语,能够较顺利阅读本专业的中文书刊、具有听、说、读、写、译的技能;

2. 掌握本专业所必需的工程科学基础理论和专业知识,具有应用基础理论和基础知识进行结构设计、施工组织、建设项目管理方面的初步能力,具有分析和解决土木工程实际问题、进行技术改造、科技开发和应用研究的初步能力;

3. 具有较强的实验测试、运算和表达能力,掌握文献检索和其它获取科技信息的方法;

4. 具有较强的自学能力、工作适应能力、较熟练的计算机操作应用能力和创新意识;

5. 具有应用系统工程思想和现代经营知识进行生产组织管理的意识。

三、毕业要求及学时、学分分配

分类		学分	学时	备注
必修	理论	130	2120	含实验学时 42, 上机学时 (76)
	实验	2	72	
	实践	40		
毕业要求	1. 本专业学生需修满教学计划要求的 172 学分, 以及通过 HSK4 级, 方可毕业。 2. 符合条件, 授予工学学士学位。 3. 本专业学生可以使用英语撰写毕业论文, 但须提供汉语论文摘要。			

第一学年

第 1 学期

课程编码	课程名称	学分	学时	讲授学时	实验	上机
2091199	初级汉语口语 (2-1)	4.0	64	64		
2092199	初级汉语精读 (2-1)	4.0	64	64		
0911199	高等数学(2-1)	6.0	96	96		
0960199	大学化学	4.0	64	54	10	
0711299	程序设计	3.0	48	32		16
2092099	道德与法律	1.0	16	16		
学期总计		22.0	352	326	10	16

第 2 学期

课程编码	课程名称	学分	学时	讲授学时	实验	上机
2091299	初级汉语口语 (2-2)	4.0	64	64		
2092299	初级汉语精读 (2-2)	4.0	64	64		
0911299	高等数学(2-2)	5.0	80	80		
0920399	线性代数与计算方法	3.5	56	56		
0611999	土木工程概论	1.5	24	24		
0434299	画法几何	2.0	32	32		
0711399	大学计算机	1.0	24	24		
学期总计		21.0	344	344		

合计

夏季学期

课程编码	课程名称	学分	学时	实验	上机
0699199	认识实习	2.0	2.0 周		
0695499	行业实践	2.0	2.0 周		
学期总计		4.0	4.0 周		

第二学年

第 3 学期

课程编码	课程名称	学分	学时	讲授学时	实验	上机
2094199	中国概况 (2-1)	3.0	48	48		
2095199	中级汉语 (2-1)	4.0	64	64		
0931199	大学物理(2-1)	4.0	64	64		
0941199	大学物理实验(2-1)	1.0	24		24	
0641199	理论力学	3.0	48	48		
0610699	土木工程制图	4.0	64	64		
0616399	土木工程制图课程设计	2.0	2 周			
学期总计		21.0	312	288	24	

第 4 学期

课程编码	课程名称	学分	学时	讲授学时	实验	上机
2094299	中国概况 (2-2)	3.0	48	48		
2095299	中级汉语 (2-2)	4.0	64	64		
0931299	大学物理 (2-2)	3.5	56	56		
0941299	大学物理实验 (2-2)	1.0	24		24	
0641299	材料力学	4.0	64	60	4	
0610799	土木工程材料	4.0	64	48	16	
0611799	工程地质与水文地质	1.5	24	24		
学期总计		21.0	344	300	44	

夏季学期

课程编码	课程名称	学分	学时	实验	上机
0693099	工程地质与水文地质实习	2.0	2.0 周		
0691399	房屋建筑学课程设计	3.0	3.0 周		
学期总计		5.0	5.0 周		

第三学年

第 5 学期

课程编码	课程名称	学分	学时	讲授学时	实验	上机
2096199	高级汉语 (2-1)	4.0	64	64		
0641399	结构力学	4.0	64	64		
0610899	混凝土结构	4.0	64	64		
0692899	混凝土结构课程设计	2.0	2 周			
0614199	土力学与基础工程	4.5	72	60	12	
0695399	基础工程课程设计	1.0	1 周			
学期总计		19.5	264	252	12	

第 6 学期

课程编码	课程名称	学分	学时	讲授学时	实验	上机
2096299	高级汉语 (2-2)	4.0	64	64		
0611299	钢结构原理	5.0	80	80		
0611099	多层与高层建筑结构设计	4.0	64	64		
0611899	土木工程 CAD	4.0	64	32		32
0691999	土木工程 CAD 课程设计	2.0	2 周			
0610999	土木工程施工	4.0	64	64		
学期总计		23.0	336	304		32

夏季学期

课程编码	课程名称	学分	学时	实验	上机
0699299	生产实习	4.0	4.0 周		
学期总计		4.0	4.0 周		

第四学年

第 7 学期

课程编码	课程名称	学分	学时	讲授学时	实验	上机
0132499	工程测量学	2.0	32	32		
0614599	路基工程	1.5	24	24		
0612099	结构抗震	4.0	64	64		
0641699	有限元软件及应用	1.5	24	12		12
0614799	防灾减灾工程概论	2.5	40	40		
0615999	工程项目经济与管理	2.0	32	32		
学期总计		13.5	216	204		12

第 8 学期

课程编码	课程名称	学分	学时	实验	上机
0699999	毕业设计	18.0	18.0 周		
学期总计		18.0	18.0 周		

Teaching Program of Civil Engineering (in English)
For Four-year Foreign Students- Fall semester
Specialty Code: 080703

I. Educational objectives

1. The profession aims to train the senior civil engineers and talents developing morally and physically that can meet the needs of the development of modern civil engineering and acquire the basic training of civil engineers. After graduation, they can be engaged in the work of survey, design, construction, management, education and other aspects related to civil engineering .
2. To be familiar with basic knowledge of Chinese national situation and culture, such as Chinese history, geography, society and economy, etc.. To understand the mainstream values and public morality of Chinese society.
3. Be able to use Chinese language to complete the course study and research tasks smoothly, and have the ability to use Chinese language to engage in work related to the major; Upon graduation, Chinese proficiency should reach HSK level 4.
4. To possess a certain international perspective in the field of this discipline, and be able to apply and develop the knowledge, skills and methods of this discipline in the actual environment of multiple countries, and have the initial ability to participate in international exchanges and cooperation.

II. Requirements

Graduates should acquire the following knowledge and capabilities.

1. Graduates will have solid foundation on math, physics, chemistry, mechanics and geology etc. They are able to use the basic Chinese to read Chinese books and magazines of their own specialty and have some skills such as listening, speaking, reading, writing and translation etc.
2. Graduates will grasp the basic theory and professional knowledge of engineering science required in their own specialty. They will possess preliminary capability to use basic applied theory and knowledge to go on construction design and organization and management, to analyze and solve practical problems on civil engineering, and to make technological improvement, scientific development and applied research.
3. Graduates will have fairly strong experiment test, calculation and expression abilities and master document retrieval and other method to acquire scientific and technological information.
4. Graduates will have a better self-study and work adaptation capability, computer operation and application ability and innovative consciousness.
5. Graduates will have insight and ability to use systematic engineering ideas and modern operational knowledge to go on production and organizational management.

III. Graduate Requirements and Distribution of Class Hours and Credits

Classification		Credits	Hours	Note
Required	Theory	130	2120	Including 42 experiment hours and (76) on-line hours
	Experiment	2.0	72	

	Practice	40		
Graduate requirements	1. Students will graduate after they earn 172 credits required in the teaching program of their specialty, and get HSK 4 certificate. 2. Engineering Bachelor's degree will be conferred to the qualified students. 3. The students can write their graduation papers in English and should offer thesis' abstract in Chinese.			

IV. Courses

The First Academic Year

1. Semester

Code	Courses	Credits	Class Hours	Teaching hours	Experiment Time	Computer Time
2091199	Oral Chinese (2-1)	4.0	64	64		
2092199	Intensive Chinese (2-1)	4.0	64	64		
0911199	Advanced Math (2-1)	6.0	96	96		
0960199	University Chemistry	4	64	54	10	
0711299	Program Design Language	3.0	48	32		16
2092099	Morality and Law	1.0	16	16		
Total		22.0	352	326	10	16

2. Semester

Code	Courses	Credits	Class Hours	Teaching hours	Experiment Time	Computer Time
2091299	Oral Chinese (2-2)	4.0	64	64		
2092299	Intensive Chinese (2-2)	4.0	64	64		
0911299	Advanced Math (2-2)	5.0	80	80		
0920399	Linear Algebra & Computational Method	3.5	56	56		
0611999	introduction of civil engineering	1.5	24	24		
0434299	descriptive geometry	2.0	32	32		
0711399	Computer technology	1.0	24	24		
Total		21	344	344		

Summer Semester

Code	Courses	Credits	Class Hours	Experiment Time	Computer Time
0699199	Cognition Practice	2.0	2 weeks		
0695499	Production Practice	2.0	2 weeks		
Total		4.0	4 weeks		

The Second Academic Year

3. Semester

Code	Courses	Credits	Class hours	Teaching hours	Experiment time	Computer time
2094199	A Survey of China (2-1)	3.0	48	48		
2095199	Intermediate Chinese (2-1)	4.0	64	64		
0931199	Physics(2-1)	4.0	64	64		
0941199	Physics Experiment (2-1)	1.0	24		24	
0641199	Theory Mechanic	3.0	48	48		
0610699	Civil Engineering drawings	4.0	64	64		
0616399	Course Design for Civil Engineering drawings	2.0	2 Weeks			
Total		21.0	312	288	24	

4. Semester

Code	Courses	Credits	Class hours	Teaching hours	Experiment time	Computer time
2094299	A Survey of China (2-2)	3.0	48	48		
2095299	Intermediate Chinese (2-2)	4.0	64	64		
0931299	Physics(2-2)	3.5	56	56		
0941299	Physics Experiments(2-2)	1.0	24		24	
0641299	Material Mechanics	4.0	64	60	4	
0610799	Civil Engineering Materials	4.0	64	48	16	
0611799	Engineering Geology & Hydrogeology	1.5	24	24		
Total		21	344	300	44	

Summer Semester

Code	Courses	Credits	Class Hours	Experiment Time	Computer Time
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0693099	Practice of Engineering Geology & Hydrogeology	2.0	2 weeks		
0691399	Building Architecture Design	3.0	3 weeks		
Total		5.0	5 weeks		

The Third Academic Year

5. Semester

Code	Courses	Credits	Class Hours	Teaching hours	Experiment Time	Computer Time
2096199	Advanced Chinese (2-1)	4.0	64	64		
0641399	Structural Mechanics	4.0	64	64		
0610899	Concrete Structure	4.0	64	64		
0692899	Course Design for Concrete Structure	2.0	2.0 weeks			
0614199	Soil Mechanics and Foundation Engineering	4.5	72	60	12	
0695399	Course Design for Foundation Engineering	1.0	1.0 week			
Total		19.5	264	252	12	

6. Semester

Code	Courses	Credits	Class Hours	Teaching hours	Experiment Time	Computer Time
2096299	Advanced Chinese (2-2)	4.0	64	64		
0611299	Steel Structure Principle	5.0	80	80		
0611099	Multi-storey and High-rise Building Structure Design	4.0	64	64		
0611899	Computer Aided Design	4.0	64	32		32
0691999	Course Design for Computer Aided Design	2.0	2 Weeks			
0610999	Civil Engineering Construction	4.0	64	64		
Total		23.0	336	304		32

Summer Semester

Code	Courses	Credits	Class Hours	Experiment Time	Computer Time
0699299	Production Practice	4.0	4 weeks		
Total		4.0	4 weeks		

The fourth Academic Year

7. Semester

Code	Courses	Credits	Class Hours	Teaching hours	Experiment Time	Computer Time	
0132499	Engineering surveying	2.0	32	32			
0614599	Road Engineering	1.5	24	24			
0612099	Structural seismic	4.0	64	64			
0641699	The finite element software and applications	1.5	24	12		12	
0614799	Introduction to Disaster Prevention and Mitigation Engineering	2.5	40	40			
0615999	Engineering Project Economics & Management	2.0	32	32			
Total		13.5	216	204		12	

8. Semester

Code	Courses	Credits	Class Hours	Experiment Time	Computer Time
0699999	Graduation Design	18.0	18 weeks		
Total		18.0	18 weeks		