全英文留学博士研究生培养方案修订目录

Doctoral Program

全英文留学学术型硕士研究生培养方案修订目录

Academic Master Program

全英文留学专业学位硕士研究生培养方案修订目录

Professional Master Program

注：*为 2017 年新增方案

全英文留学博士研究生培养方案

马克思主义理论（0305）

学科门类：法学（03）一级学科：马克思主义理论（0305）

一、专业描述

马克思主义是科学的世界观和方法论，是反映客观世界特别是人类社会本质和发展规律的科学，是关于无产阶级和人类解放的学说。对马克思主义既应该从哲学、政治经济学、科学社会主义等方面进行分门别类的研究，更应该进行整体性研究，以利于完整地把握它的科学思想体系。“马克思主义理论”学科，就是对马克思主义进行整体性研究的一级学科。

马克思主义理论学科注重马克思主义理论的整体性，旨在研究马克思主义基本理论及其教育教学的实践和规律，其根本研究方法是辩证唯物主义和历史唯物主义，在研究中强调理论与实践、逻辑与历史、继承与创新、科学性与意识形态性的辩证统一，坚持马克思主义优良学风、科学精神和科学方法，不断增强马克思主义学术创造力，形成体现马克思主义立场、观点、方法的话语体系，促进马克思主义的当代发展，努力提升马克思主义理论学科的国际影响力。

河海大学是在全国较早传播马克思主义思想的高校之一，其历史可追溯至成立于 1915 年的“河海工程专门学校”时期。学院现拥有法学、哲学两大学科门类，融合马克思主义理论、哲学两个一级学科和部分政治学二级学科为一体，设有博士后流动站。学院现有教职员工 44 人，其中教授 17 人，副教授 10 人。2010 至 2013 年期间，马

克思主义学院承担国家社科基金课题和教育部人文社会科学基金 16 项，课题经费达 300 余万元。出版学术专著与各类教材 12 部；发表学术论文 558 篇。

二、培养目标

马克思主义理论博士生培养目标为，具有坚定的马克思主义信仰和社会主义信念的高级人才。要求毕业生熟悉马列主义经典著作和中国化马克思主义重要文献，有比较深厚的马克思主义的理论功底和专业基础知识，能够很好地运用马克思主义立场观点方法研究和分析现实社会问题。

培养方案的设计要为学生提供良好的学术环境，学生将在资深教授（博导）的指导下，通过结合研究课题，寻求理论与实践的结合。鼓励学生应用获得的知识和理论发展分析现实问题的能力。成为能胜任与本学科相关的理论研究、教育教学、宣传和实际工作的高级专门人才。

三、研究方向

马克思主义理论专业全英文博士生培养计划包括（但不限于）以下研究方向:

1. 马克思主义传播史
2. 国外马克思主义
3. 马克思主义中国化

四、申请条件

马克思主义理论全英文专业博士生申请人需要满足以下条件:

1．已在我国认可的海内外高校或学术机构获得硕士学位者。

2．能够用英语进行课程学习、阅读文献和进行学术写作，能够用英语进行日常交流。

五、培养年限

攻读博士学位的标准学制为 4 年，实行弹性学制，学习年限最短不低于 3 年，最长不超过 6 年。

六、学分要求和课程设置

本专业博士留学研究生课程总学分为 15 学分，其中学位课程为 11 学分，非学位课程为 4 学分。另设教学环节。具体开设课程见附表。

Theory of Marxism (0305)

Discipline: Law(03)

First-Class Discipline: Theory of Marxism(0305)

1. Discipline Description

Marxism is the scientific world outlook and methodology. It is the scientific reflection of the objective world, the nature and development rule of human society in particular, and also the theory of emancipation of the proletariat and human. The study of Marxism is not only the separate research of philosophy, political economy, scientific socialism, etc., but also an integral study so as to completely comprehend its scientific ideology. “Theory of Marxism” is the first-grade discipline that studies Marxism integrally.

Theory of Marxism focuses on the integrity and studies basic theories of Marxism as well as its teaching practices and principles. The fundamental method is dialectical materialism and historical materialism, underlining the dialectical unity of theory and practice, logic and history, inheritance and innovation, scientific and ideology, persisting in the fine style of study and scientific spirit and method of Marxism, increasingly strengthening the academic creativity of Marxism, so as to form the discourse system that embodies Marxist standpoint and method as well as advance the contemporary development of Marxism, trying to promote the international influence of this discipline.

Hohai university is one of the universities that spread the thought of Marxism from early times in China, the history of which can date back to the period of “Hohai engineering school” established in 1915. At present, the school includes two discipline types—Law and Philosophy, two first-grade disciplines—Theory of Marxism and Philosophy, and some part of second-grade discipline of politics, establishing the post-doctoral research station as well. The school has 44 academic and administrative staff, with 17 professors and 10 associate professors. During the period of 2005 and 2010, the school of Marxism has undertaken nearly one hundred research projects and research funds amounting to more than 3 millions. 18 academic monographs and textbooks as well as 558 academic theses have been published.

2. Program Description

The training destination of this doctorate program is professionals with firm Marxism and socialist belief. It is required that the doctorate graduates will be familiar with the classical works of Marxism Leninism and important documents of Sinicized Marxism, be equipped with profound theory and professional knowledge of Marxism, and study and analyze social reality with Marxist standpoint and method.

The design of the program will provide students with favorable academic environment. Under the guidance of senior professors (supervisors for doctor degree), students will find the combination of theory and practice through research subjects. Students are encouraged to analyze social reality with theknowledge and theories acquired and become senior professionals qualified in theoretical research, teaching and propaganda related to the discipline.

3. Research Directions

The doctorate program of Theory of Marxism (taught in English) includes (not limited to) following research directions:

- Development History of Marxism
- Marxism in foreign countries
- Sinicization of Marxism

4. Application Requirements

(1) You have received the master degree from the domestic and overseas universities or academic institutions accredited by the Ministry of Education.

(2) You have the ability to read and write academic papers and communicate in English.

5.Educational System and Duration

The doctorate program is 4 years, the duration is minimum 3 years and no more than 6 years.

6. Credits and Courses

A doctoral student must take at least 15 credits of courses, including 11 credits of Required course of the degree and 4 credits of Non-required course of the degree. Module structure of the doctorate program of Theory of Marxism is listed below.

马克思主义理论全英文留学博士研究生课程设置

Courses for DoctoralStudents of Theory of Marxism

课程类别 Categories		课程编号 No	课程名称 Course	学时 Hours	学分 Credit	开课学期 Term	备注 Note
学位课程 11 学分 Required course of the degree 11Credits	公共课程 General Courses	2015LXS01	*汉语Ⅰ Chinese LanguageⅠ	32	2	秋 fall	必修 Required Course
		2015LXS03	*中国概况 Introduction to China	32	2	秋 fall	
	基础课程 Basic Courses	2015MY01	马列经典著作选读 Classic Texts in Marxism	32	2	春 spring	选修 4 学分 4 Credits at least
		2015MY02	欧陆哲学研究 European Philosophy	32	2	春 spring	
	专业课程 Major Courses	2015MY03	当代社会思潮 Contemporary Social Theories	16	1	春 spring	必修 Required Course
		2015MY04	中外政治体制比较 Comparative Study between Political Systems	32	2	春 spring	
非学位课程 4 学分 Non-required course of the degree 4Credits		2015LXS05	跨学科选修 A course in other Disciplines	32	2		选修 4 学分 4 Credits at least
		2015LXS04	*第二外国语（除母语与汉语外） Second Foreign Language	32	2		
		2015MY05	读书报告 Monthly Report	32	2	春 spring	
教学环节 Academic Activities		学术活动 Seminar and Conferences					必修 Required Course
		科学研究 Scientific Research					
		文献阅读与综述 Literature Reading and Reviewing					

社会学（030301）

学科门类：法学（03）一级学科：社会学（0303）

一、专业描述

河海大学 2003 年获得社会学二级学科硕士授予权，2005 年获得社会学二级学科博士学位授予权和社会学一级学科硕士学位授予权，2012 年获批设立博士后科研流动站，目前是全国 21 家具有博士学位授予权的单位之一。河海社会学特色鲜明，研究方向包括移民社会学、城乡社会学、环境社会学、社会评估、社会政策与社会管理等方向。过去 5 年，本学科主持国家社会科学基金、国家自然科学基金、教育部人文社科基金、江苏省社会科学基金、国家博士后基金等国家与省部级基金课题 40 余项，主持世行、亚行、水利部、农业部、住建部等课题 200 余项，科研经费充裕。本学科有较高学术声誉。

二、培养目标

本专业旨在培养具有扎实和严谨的学风，掌握深厚的社会学理论，熟练运用社会学的理论与方法，具有较强的教学、科研、组织、管理等实际工作的能力，独立地从事探索性研究的社会学高级专门人才。

三、研究方向

1、移民社会学 (Migration and Resettlement Sociology)

2、城乡社会学 (Rural and Urban Sociology)

3、环境社会学(Environmental Sociology)

4、社会评估(Social Assessment)

5、社会政策与社会治理(Social Policy and Social Governance)

四、申请条件

社会学专业博士生申请人需要满足以下条件:

1. 已在我国认可的海内外高校或学术机构获得硕士学位者。

2. 能够用英语阅读文献和进行学术写作，能够用英语进行日常交流。

五、培养年限

攻读博士学位的标准学制为 4 年，实行弹性学制，学习年限最短不低于 3 年，最长不超过 6 年。

六、学分要求和课程设置

本专业博士留学研究生课程总学分为 15 学分，其中学位课程为 11 学分，非学位课程为 4 学分。另设教学环节。具体开设课程见附表。

Sociology (030301)

Discipline: Law (03)

First-Class Discipline: Sociology (0303)

1. Discipline Description

Hohai University had been authorized the master and doctoral degree awarding qualifications of subordinate discipline of Sociology respectively in 2003 and 2005, and the master degree awarding qualification of first-grade discipline of Sociology in 2005. Meanwhile, a post-doctoral research station of the discipline of Sociology had been set up in Hohai University. Until now, Hohai University is the one of 21 universities or research institutes who has qualifications of awarding doctoral degree of Sociology in China.

The research directions of discipline of Sociology in Hohai University mainly focus on Migration Sociology, Rural and urban Sociology, Environmental Sociology, Social Assessment, Social Policy and Management.

In the past 5 years, the researchers of discipline of Sociology in Hohai University had obtained more than 40 items of research projects from national, departmental or provincial level research foundations, such as National Philosophy and Social Science Research Foundation, National Nature Science Foundation, the Humanities and Social Science Research Foundation of the Ministry of Education, Jiangsu Provincial Philosophy and Social Science Research Foundation, National Post-Doctoral Research Foundation. Meanwhile, the discipline of Sociology had obtained about 200 research or consultant projects from WB, ADB, Ministry of Water Resource, Ministry of Agriculture, Ministry of Housing and Urban-Rural Development and other organizations or institutions. The discipline of sociology in Hohai University has sufficient funding for researching, and had good academic reputation in China.

2. Program Description

The program of Sociology aims at cultivating high-level individuals with the capacities of teaching, researching, organizing or management skills in practical or

theory fields. He should have full knowledge of theories, methods and practical skills of sociology with serious learning attitude and rigorous scholarship.

3. Research Directions

The research directions in the program will mainly focus on:

- Migration and Resettlement Sociology
- Rural and Urban Sociology, Supervisor
- Environmental Sociology
- Social Assessment, Supervisor
- Social Policy and Social Governance

4. Application Requirements

Applicants seeking admission to the doctoral study program in the discipline of Sociology should: (1) Have obtained a Master Degree from colleges or universities or academic institutions that must be accepted by Chinese government in China or around the world. (2) Has the capacity for reading references and writing academic papers by English, and has the capacity of communicating by English in daily life.

5. Educational System and Duration

The doctorate program is 4 years, the duration is minimum 3 years and no more than 6 years.

6. Credits and Courses

A doctoral student must take at least 15 credits of courses,including 11 credits of Required course of the degree and 4 credits of Non-required course of the degree.

社会学全英文留学博士研究生课程设置

Courses for Doctoral Students of Sociology

课程类别 Categories		课程编号 No	课程名称 Course	学时 Hours	学分 Credit	开课学期 Term	备注 Note
学位课程 11 学分 Required course of the degree 11Credits	公共课程 General Courses	2015LXS01	* 汉语Ⅰ Chinese Language Ⅰ	32	2	秋 fall	必修 RequiredCourse
		2015LXS03	* 中国概况 Introduction to China	32	2	秋 fall	
	基础课程 Basic Courses	2015JC20	社会理论 Social Theory	32	2	秋 fall	选修 4 学分 4 Credits at least
		2015JC15	社会研究方法 Social Research Methodology	32	2	秋 fall	
	专业课程 Major Courses	2017GG09	学科前沿专题 Modern Science of the Discipline	16	1		选修 3 学分 3Credits at least
		2015GG16	移民社会学 Migration Sociology	32	2	秋 fall	
		2015GG17	环境社会学 Environmental Sociology	32	2	秋 fall	
		2017GG07	人类学理论与方法 Anthropological Theories and Methods	32	2	秋 fall	
非学位课程 4 学分 Non-required course of the degree 4 Credits		2015LXS05	*跨一级学科选修 Non-required course of the degree of multi-disciplines	32	2		选修 2 学分 2 Credits at least
		2015GG09	社会评价 Social Assessment	32	2	秋 fall	
		2017GG08	全球化与社会发展 Study on Globalization and Development	32	2	春 fall	
		2015LXS04	*第二外国语（除母语与汉语外） Second Foreign Language	32	2	春 spring	必修 RequiredCourse
教学环节 Academic Activities		学术活动 Seminar and Conferences					必修 RequiredCourse
		科学研究 Scientific Research					
		文献阅读与综述 Literature Reading and Reviewing					

工程力学（080104）

学科门类：工学（08）一级学科：力学（0801）

一、专业描述

力学是应用物理科学的一个分支学科，主要研究物体或系统受外力作用后的响应。工程力学属于力学学科中的一个二级学科，专注于求解工程实践中所遇到的各种相关力学和工程问题。需要综合应用数学、力学和工程科学中的基本原理，强调力学理论的工程应用。工程力学在土木水利工程、机械工程、航空航天工程等领域有着广泛的应用。

河海大学力学学科，是国家重点学科和江苏省重点学科。其主要特色是紧密结合水利水电工程，着重解决重大水电工程中的复杂结构分析和复杂工程问题的求解。学科从属于力学与材料学院，其前身工程力学系是河海大学最早建立的 5 个系科之一。工程力学系的创始人、著名力学专家徐芝纶院士也是水工结构工程学科博士点的第一个博士生导师。力学学科目前有 45 名教学科研人员，其中包括 26 名教授，15 名博导。近年来承担了大量与与水电工程有关的科研课题，包括多项国家重点基础研究（973）项目课题，一项重点基金和一项杰出青年基金，大量面上基金、青年基金和横向项目，近三年科研经费总额超过 4 千万。

二、培养目标

工程力学博士生培养目标为，致力于培养水利、土木工程领域的

高端专门人才。毕业生具有坚实的数学和力学理论基础、系统的工程专业知识，和对复杂的工程问题正确建模分析的能力，能熟练运用现代基础理论和先进的计算方法及实验技术手段开展科学研究，能够胜任大型复杂工程的技术研究开发，高等院校和研究机构的教学和科研工作。

培养方案的设计要为学生提供良好的学术环境，学生将在资深教授（博导）的指导下，通过结合研究课题，探索新的知识和应用力学原理去解决工程问题。鼓励学生应用获得的知识和技能发展解决问题的能力，并且在所研究的领域贡献新的成果。

三、研究方向

工程力学专业全英文博士生培养计划包括（但不限于）一下几个主要研究方向:

- 高性能工程计算与仿真模拟
- 工程结构损伤检测与安全评估
- 工程材料力学特性与模拟

四、申请条件

工程力学全英文专业博士生申请人需要满足以下条件:

1．已在我国认可的海内外高校或学术机构获得硕士学位者。

2．能够用英语进行课程学习、阅读文献和进行学术写作，能够用英语进行日常交流。

五、培养年限

攻读博士学位的标准学制为 4 年，实行弹性学制，学习年限最短

不低于 3 年，最长不超过 6 年。

六、学分要求和课程设置

本专业博士留学研究生课程总学分为 15 学分，其中学位课程为 11 学分，非学位课程为 4 学分。另设教学环节。具体开设课程见附表。

Engineering Mechanics（080104）

Discipline：Engineering（08）

First- Class Discipline：Mechanics（0801）

1. Discipline Description

Mechanics is a discipline of applied physical science that studies the responses of bodies or body systems to the external forces. Engineering mechanics is an applied branch of mechanics devoted to the solution of mechanics problems arising from engineering practices, through integrated application of mathematical, scientific and engineering principles. Research in engineering mechanics has wide applications in many engineering fields including civil engineering, mechanical engineering, aeronautics and astronautics engineering, etc.

Engineering Mechanics in Hohai University is a key discipline of the country as well as a key discipline of Jiangsu Province. Highlighted by engineering applications, research in the Discipline of Engineering Mechanics at Hohai University is mainly focused on practical problems encountered in large hydro-electric engineering, geotechnical and structural engineering. Special emphasis is placed on the understanding of physical principles underlying modern engineering design. The discipline is accommodated in the college of Mechanics of Materials, which was formally known as the Department of Engineering Mechanics, one of the 5 earliest found departments in Hohai University. The late Prof. Xu Zhilun, a renowned engineering scientist in China and a fellow of the Chinese Academy of Science, was a department founder. He was also the first PhD supervisor in the discipline of hydraulic engineering. Currently the discipline has 45 academic staff, among them 26 are professors and PhD supervisors. They are engaged in many research projects in the areas of Structural Analysis and Safety Assessment of High Dams, the Mechanical Property of Engineering Materials, Computational Mechanics and Engineering Simulations, etc. In the last three years, the discipline has undertaken several research projects in National Basic Research Programs (973) funded by the Ministry of Science and Technology, a NSFC priority research project and an Outstanding Young Scientist Funding, many NSFC general research projects and other research and consulting projects. The total research funding in the last three years has exceeded RMB40

million Yuan.

2. Program Description

The program in Engineering Mechanics aims at cultivating high-level individuals with solid fundamental knowledge in the theory of mechanics and specialized in a particular engineering application, who are capable of handling complex technical problems in large engineering projects, can undertake research and development project in large engineering companies or teaching and research work in academic institutions.

The program is designed to provide students with an intellectual environment to explore the knowledge and principles in mechanics and engineering applications through research project under guidance of an established professor (PhD supervisor). Through the program, students have opportunities to develop their problem-solving ability with new knowledge and skills, and to make their own contributions to their research field.

3. Research Directions

The PhD program in Engineering Mechanics is mainly oriented (but not limited) to the following research areas:

- High performance engineering computation & simulation;
- Damage detection and safety assessment of engineering structures;
- Behavior of engineering materials and modeling

4. Application Requirements

(1) You have received the master degree from the domestic and overseas universities or academic institutions accredited by the Ministry of Education.

(2) You have the ability to read and write academic papers and communicate in English.

5. Educational System and Duration

The doctorate program is 4 years, the duration is minimum 3 years and no more than 6 years.

6. Credits and Courses

A doctoral student must take at least 15 credits of courses, including 11 credits of Required course of the degree and 4 credits of Non-required course of the degree. Module structure of the doctorate program of Engineering Mechanics is listed below.

工程力学全英文留学博士研究生课程设置

Courses for Doctoral Students of Engineering Mechanics

课程类别 Categories		课程编号 No	课程名称 Course	学时 Hours	学分 Credit	开课学期 Term	备注 Note
学位课程 11 学分 Required course of the degree 11 Credits	公共课程 General Courses	2015LXS01	*汉语 Chinese Language	32	2	秋 fall	必修 RequiredCourse
		2015LXS03	*中国概况 Introduction to China	32	2	秋 fall	
	基础课程 Basic Courses	2015JC02	应用数学 Applied Mathematics	64	4	秋 fall	选修 3 学分 3Credits at least
		2015JC05	偏微分方程近代方法 Modern Methods in Partial Differential Equations	32	2	秋 fall	
		2015JC07	可靠性分析 Reliability Analysis	32	2	秋 fall	
	专业课程 Major Courses	2017LC11	学科前沿专题 Modern Science of the Discipline	32	2		必修 RequiredCourse
		2015LC01	塑性理论与本构模拟 Plasticity & constitutive Modelling of Engineering Materials	32	2	秋 fall	选修 2 学分 2 Credits at least
		2015LC02	高等计算力学 Advanced Computational Mechanics	32	2	春 spring	
非学位课程 4 学分 Non-required course of the degree 4 Credits		2015JC10	结构动力学 Structural Dynamics	32	2	春 spring	选修 2 学分 2 Credits at least
		2015LXS07	英文科技写作 The Art of Scientific Presentation and Writing in English	32	2	春 spring	
		2015LXS04	*第二外国语（除母语与汉语外） Second Foreign Language	32	2		必修 RequiredCourse
教学环节 Academic Activities		学术活动 Seminar and Conferences					必修 RequiredCourse
		科学研究 Scientific Research					
		文献阅读与综述 Literature Reading and Reviewing					

电气工程（0808）

学科门类：工学（08）一级学科：电气工程（0808）

一、专业描述

电气工程一级学科(0808)覆盖五个二级学科，即电机与电器(080801)、电力系统及其自动化(080802)、高电压与绝缘技术(080803)、电力电子与电力传动(080804)、电工理论与新技术(080805)，主要研究方向覆盖了电能生产、传输、变换、应用、检测、控制、调试和管理的全过程。该学科成立于 1987 年，经过多年的发展，已在电力系统运行与控制、地区电力系统自动化、电力设备故障诊断、电力电子与电气传动、电机与控制、风力发电等方面取得显著成果。我校电气工程及其自动化专业是国家特色专业，电气工程学科是校重点学科。本学科科研条件良好，建有“可再生能源发电技术教育部工程研究中心”、“电力系统动态模拟实验室”和“电力系统健康诊断实验室”，拥有“电力系统自动化”、“电力电子与电气新技术”、“智能电网”和“新能源”等多个研究所。近年来，本学科快速发展，每年招收数十名海外博士生和硕士生，为国际电气工程领域的人才培养和科学进步做出了重要贡献。

二、培养目标

在本门学科上掌握坚实的基础理论和系统的专门知识；具有从事科学研究工作或独立担负专门技术工作的能力。

三、研究方向

1．电力系统运行与控制（Power System Operation and Control）

2．地区电力系统自动化（Automation of Distribution Power Systems）

3. 电气设备故障诊断与信息处理（Fault Diagnosis and Information Processing for Electrical Equipments ）

4. 新型交直流电气传动系统（Novel AC/DC Electrical Drive System）

5．可再生能源发电系统（Renewable Energy Conversion System）

6．电力系统过电压与保护（Overvoltage and Protection of Power System）

四、申请条件

1．已在我国认可的海内外高校或学术机构获得硕士学位者。

2．能够用英语进行课程学习、阅读文献和进行学术写作，能够用英语进行日常交流。

五、培养年限

攻读博士学位的标准学制为 4 年，实行弹性学制，学习年限最短不低于 3 年，最长不超过 6 年。

六、学分要求和课程设置

本专业博士留学研究生课程总学分为 15 学分，其中学位课程为 11 学分，非学位课程为 4 学分。另设教学环节。具体开设课程见附表。

Electrical Engineering (0808)

Discipline: Engineering (08)

First-Class Discipline: Electrical Engineering (0808)

1. Discipline Description

The Discipline of electrical engineering (0808) covers 5 secondary disciplines. They are Electric Machine and electric appliance(080801), power system and its automation (080802), high voltage and Insulation technology (080803), power electronics and electric drive (080804), Electrician principles and new technologies(080805). The main research directions cover the whole procedure of energy production, transmission, conversion, usage, detection, control, testing and management. This discipline was set up in 1987. The Discipline of electrical engineering in Hohai university had got much success in Power System Operation and Control, Automation of Distribution Power Systems, Fault Diagnosis and Information Processing for Electrical Equipments, Novel AC/DC Electrical Drive System, Renewable Energy Conversion System, power electronics and electric drive. The major of power electrical engineering and its automation in Hohai university is state-class major. The Discipline of electrical engineering is university-class key discipline. The discipline of electrical engineering has good research conditions. We have the Research Center for Renewable Energy Generation Engineering (Hohai University), Ministry of Education, power system dynamic simulation lab., and power system healthy diagnosis lab. and the research center of power system automation, power electronics and new electrical technology, smart grid and renewable energy. In recent years, the graduates go to utilities, large state companies, academic institutions and universities.

2. Program Description

To take up the principle theories and systemic major knowledge in electrical engineering, have capability of doing research works or independently taking on specialized technical works.

3. Research Directions

- Power System Operation and Control
- Automation of Distribution Power Systems
- Fault Diagnosis and Information Processing for Electrical Equipments
- Novel AC/DC Electrical Drive System
- Renewable Energy Conversion System
- Overvoltage and Protection of Power System

4. Application Requirements

(1) You have received the master degree from the domestic and overseas universities or academic institutions accredited by the Ministry of Education.

(2) You have the ability to read and write academic papers and communicate in English.

5. Educational System and Duration

The doctorate program is 4 years, the duration is minimum 3 years and no more than 6 years.

6. Credits and Courses

A doctoralstudent must take at least 15 credits of courses, including 11 credits of Required course of the degree and 4 credits of Non-required course of the degree.

电气工程全英文留学博士留学研究生课程设置

Courses for Doctoral Students of Electrical Engineering

课程类别 Categories		课程编号 No	课程名称 Course	学时 Hours	学分 Credit	开课学期 Term	备注 Note
学位课程 11 学分 Required course of the degree 11Credits	公共课程 General Courses	2015LXS01	*汉语 I Chinese Language I	32	2	秋 fall	必修 Required Course
		2015LXS03	*中国概况 Introduction to China	32	2	秋 fall	
	专业基础课程 Major BasicCourses	2015JC03	数值分析 Numerical Analysis	48	3	秋 fall	必修 Required Course
		2015JC04	最优化方法 Optimization Methods	32	2	秋 fall	
	专业课程 Major Courses	2015ND01	电力系统分析与控制 Power System Analysis & Control	32	2	春 spring	选修 2 学分 2Credits at least
		2015ND02	电力系统建模 Power System Modeling	32	2	春 spring	
		2015ND03	现代电力系统与清洁能源 Modern Power Systems and Clean Energy	32	2	春 spring	
非学位课程 4 学分 Non-required course of the degree 4 Credits		2015LXS07	英文科技写作 The Art of Scientific Presentation and Writing in English	32	2	秋 fall	必修 Required Course
		2015JC25	程序设计方法 Methods of Programming	32	2	秋 fall	选修 2 学分 2Credits at least
		2015JC26	计算机辅助设计 Computer-Aided Design	32	2	春 spring	
		2015LXS05	*跨学科选修 Interdisciplinary Elective	32	2		
教学环节 Academic Activities		学术活动 Seminar and Conferences					必修 Required Course
		科学研究 Scientific Research					
		文献阅读与综述 Literature Reading and Reviewing					

信息与通信工程（0810）

学科门类：工学（08）一级学科：信息与通信工程（0810）

一、专业描述

河海大学“信息与通信工程”学科源于我校基础理论及电子学工程系的无线电设计与制造专业（1960-1962）。1998 年获批“通信与信息系统”二级学科硕士点，2003 年获批“信号与信息处理”二级学科硕士点， 2005 年和 2011 年分别获批“信息与通信工程”一级学科硕士点和一级学科博士点。2008 年通信工程专业获批江苏省精品专业，2010 年评为国家特色专业。

学科围绕“信息获取与处理、通信传输、领域应用”信息链，以行业重大需求为导向，在信息获取与处理、遥感与遥测、通信网与专用通信系统、多维信号处理、雷达探测与信号处理等几个方向形成了与国际研究前沿/热点接轨、与工程应用技术紧密结合的鲜明特色。本一级学科现有教授 13 名，博导 11 名, 其中海外取得博士学位占专任教师总人数的 31.1%， 45 岁以下中青年教师具有海外留学经历的比例为 100%。学科还拥有江苏省海洋监测设备与数据处理工程中心和江苏省水灾害监控与决策支持系统工程中心。研究生就业单位有机关事业单位、高校和科研机构、大中型 IT 企业等。

二、培养目标

在本门学科上掌握坚实宽广的基础理论和系统深入的专门知识；具有独立从事科学研究工作的能力；在科学或专门技术上做出创造性

的成果。

三、研究方向

1、信息处理(Signal and Information Processing)

2、通信与信息系统(Communication and Information System)

3、遥测与信息网络(Telemetering and Information Network)

4、微波技术与应用 (Microwave Technology and Its application)

5、智能信息系统 (Intelligent Information System)

6、移动通信系统 (Mobile Telecommunications System)

7、物联网技术与应用 (Internet of things and its Application)

8、人工智能与大数据（Artificial Intelligence and Big Data）

四、申请条件

1．已在我国认可的海内外高校或学术机构获得硕士学位者。

2．能够用英语进行课程学习、阅读文献和进行学术写作，能够用英语进行日常交流。

五、培养年限

攻读博士学位的标准学制为 4 年，实行弹性学制，学习年限最短不低于 3 年，最长不超过 6 年。

六、学分要求和课程设置

本专业博士留学研究生课程总学分为 15 学分，其中学位课程为 11 学分，非学位课程为 4 学分。另设教学环节。具体开设课程见附表。

Information and Communication Engineering（0810）

Discipline：Engineering（08）

First-Class Discipline: Information and Communication Engineering（0810）

1.Discipline Description

The discipline of Information and Communication Engineering of Hohai University derives its origin from the discipline of Radio Design and Manufacture in the department of Electronic (1960-1962). It is approved as the secondary master discipline in 2003, followed by the approval of the first-class master and doctoral disciplines in 2005 and 2011 respectively. Furthermore it was also authorized as elite program of Jiangsu Province and national specialty in 2008 and 2010.

The discipline embraces the information processing chain from signal gathering and processing, communication/transmission and application in various domains. Led by the industrial major demands, the discipline forms a close integration with industry and international track in hot research areas including signal gathering and processing, remote sensing, communication system, multivariate signal processing, radar detection and signal processing. The first-class discipline currently has 13 professors, 11 PhD supervisors and 31.1% faculties with overseas doctoral degrees. All faculties under the age of 45 have overseas experiences. The discipline also has Ocean Monitoring Equipment and Data Processing centre of Jiangsu Province and Flooding Monitoring and Decision Support System Engineering Center of Jiangsu Province. Graduates mostly begin careers in governments, universities/scientific research institutions and medium and large IT enterprises.

2.Program Description

Graduates shall have the capacity of both fundamental theories and systematic in-depth expertise knowledge in the above discipline .and be capable of conducting scientific research with independence.

3.Research Directions

The PhD program in Information and Communication Engineering is mainly

oriented (but not limited) to the following research areas:

- Signal and Information Processing
- Communication and Information System
- Telemetering and Information Network
- Microwave Technology and Its application
- Intelligent Information System
- Mobile Telecommunications System
- Internet of things and its Application
- Artificial Intelligence and Big Data

4. Application Requirements

(1) You have received the master degree from the domestic and overseas universities or academic institutions accredited by the Ministry of Education.

(2) You have the ability to read and write academic papers and communicate in English.

5. Educational System and Duration

The doctorate program is 4 years, the duration is minimum 3 years and no more than 6 years.

6. Credits and Courses

A doctoral student must take at least 15 credits of courses, including 11 credits of Required course of the degree and 4 credits of Non-required course of the degree.

信息与通信工程全英文留学博士研究生课程设置

Courses for Doctoral Students of Information and Communication Engineering

课程类别 Categories		课程编号 No	课程名称 Course	学时 Hours	学分 Credit	开课学期 Term	备注 Note
学位课程 11 学分 Required course of the degree 11 Credits	公共课程 General Courses	2015LXS01	*汉语 Chinese Language	32	2	秋 fall	必修 RequiredCourse
		2015LXS03	*中国概况 Introduction to China	32	2	秋 fall	
	基础课程 Basic Courses	2015JC02	应用数学 Applied Mathematics	64	4	秋 fall	选修 4 学分 4 Credits at least
		2015JC08	矩阵论 Matrix Theory	32	2	秋 fall	
	专业课程 Major Courses	2017JX27	学科前沿专题 Modern Science of the Discipline	16	1	秋 fall	必修 RequiredCourse
		2015JX03	现代数字信号处理 Modern Digital Signal Processing	32	2	秋 fall	选修 2 学分 2 Credits at least
		2015JX02	视频图像处理 Video Image Processing	32	2	秋 fall	
		2017CZ04	图像处理与分析 Image Processing and Analysis	32	2	秋 fall	
		2017CZ01	移动通信 Mobile Telecommunications	32	2	秋 fall	
非学位课程 4 学分 Non-required course of the degree 4 Credits		2015JX04	数字通信 Digital Communication	32	2	春 spring	选修 4 学分 4 Credits at least
		2017JX17	模式识别新技术 New technology for pattern recognition	32	2	秋 fall	
		2015LXS07	科技论文写作 Academic Paper Writing	32	2	春 spring	
		2017CZ02	智能计算 Intelligent Computing	32	2	秋 fall	
		2015LXS05	跨学科选修 Interdisciplinary Optional 数据管理与分析技术 Data Management and Analysis Technology ---------- 或（or） ---------- 人工神经网络 Artificial Neural Networks ---------- 或（or） ---------- 分布计算与分布式系统 Distributed Computing & systems	32	2		
教学环节 Academic Activities		学术活动 Seminar and Conferences					必修 RequiredCourse
		科学研究 Scientific Research					
		文献阅读与综述 Literature Reading and Reviewing					

计算机科学与技术（0812）

学科门类：工学（08）一级学科：计算机科学与技术（0812）

一、专业描述

河海大学计算机科学与技术学科始于 1978 年开始招生的电子计算机及应用本科专业，1996 年获得计算机应用技术硕士学位授予权，同年被评为水利部重点学科，2000 年获得计算机科学与技术一级学科硕士点，2002 年被评为江苏省普通高校“青蓝工程”优秀学科梯队，2005 年获得计算机应用技术二级学科博士学位授予权，2009 年获计算机科学与技术博士后流动站。2010 年获得“计算机科学与技术”一级学科博士学位授予权。计算机科学与技术一级学科包含 3 个二级学科：计算机体系结构、计算机软件与理论、计算机应用。

近年来，计算机科学与技术学科紧密结合江苏软件强省建设和水利现代化建设的重大需求，依托河海大学优势学科平台建设，承接了国家“973”、“863”、自然科学基金等基础研究类项目，以及三峡工程管理系统、国家防汛抗旱指挥系统、数字黄河工程、水资源监控管理系统等一批重大工程的信息化建设项目，积极推进水利信息化工作，形成学科的优势与特色。

二、培养目标

在本门学科上掌握坚实宽广的基础理论和系统深入的专门知识；具有独立从事科学研究工作的能力；在科学或专门技术上做出创造性的成果。

三、研究方向

1、软件新技术（Novel Software Technologies）

2、数据与知识工程（Data & Knowledge Engineering）

3、信息安全与可信计算（Information Security & Trusted Computing）

4、智能信息处理（Intelligent Information Processing）

5、语义 Web 与万维网科学（Semantic Web & Web Science）

四、申请条件

1、已在我国认可的海内外高校或学术机构获得硕士学位者。

2、能够用英语进行课程学习、阅读文献和进行学术写作，能够用英语进行日常交流。

五、培养年限

攻读博士学位的标准学制为 4 年，实行弹性学制，学习年限最短不低于 3 年，最长不超过 6 年。

六、学分要求和课程设置

本专业博士留学研究生课程总学分为 15 学分，其中学位课程为 11 学分，非学位课程为 4 学分。另设教学环节。具体开设课程见附表。

Computer Science and Technology (0812)

Discipline: Engineering (08)

First-Class Discipline: Computer Science and Technology (0812)

1. Discipline Description

The discipline of Computer Science and Technology in Hohai University (hereinafter referred to as HHU-CS) started from 1978. It was authorized to offer Master and Doctorate degrees in the first-class discipline Computer Science and Technology in 2000 and 2010, respectively. HHU-CS was named as one of the key disciplines of the Ministry of Water Resources of the People's Republic of China in 1996 and one of the state-level characteristic disciplines in China in 2008. In 2009, a post-doctoral research station of Computer Science and Technology was established. As one of the first-class disciplines, Computer Science and Technology includes three second-level disciples: Computer Architecture, Computer Software and Theory, and Computer Application Technologies.

Recently, HHU-CS has undertaken many state-level projects such as the National Basic Research Program of China (973 Program), the National High-Tech Research and Development Program of China (863 Program), the National Key Technologies Research and Development Program of China and the National Natural Science Foundation of China, as well as the informatization of many major engineering projects, e.g. the Three Gorges Management System, the State Flood Control and Drought Relief Command System and the Digital Yellow River Project.

HHU-CS has 45 faculty and staff members. Adhering to the talents cultivation idea of "strengthening the foundation, attaching importance to practice and pursuing innovation", HHU-CS has established a complete cultivating system from undergraduates to doctoral candidates. In recent years, HHU-CS has published hundreds of high quality scientific articles in refereed journals and conference proceedings and received dozens of state-level awards and honors.

2. Program Description

(1) To have practical, realistic and scientific attitude, and to generate proper, meticulous and honest academic atmosphere; to connect theory with practice; to be good at intensive study and teamwork.

(2) To thoroughly command fundamental and broad theories, as well as systemic and in-depth professional knowledge of computer science and technology; to be able to perform scientific or engineering work independently and creatively.

(3) To completely understand the current situation and future trend of computer science and technology and the latest development of relevant research fields; to be capable of performing teaching and technology management in relevant fields.

3. Research Directions

- Novel Software Technologies
- Data & Knowledge Engineering
- Information Security & Trusted Computing
- Intelligent Information Processing
- Semantic Web & Web Science

4. Application Requirements

(1) You have received the master degree from the domestic and overseas universities or academic institutions accredited by the Ministry of Education.

(2) You have ability to read and write academic papers and communicate in English.

5. Educational System and Duration

The doctorate program is 4 years, the duration is minimum 3 years and no more than 6 years.

6. Credits and Courses

A doctoral student must take at least 15 credits of courses, including 11 credits of Required course of the degree and 4 credits of Non-required course of the degree.

计算机科学与技术全英文留学博士研究生课程设置

Courses for Doctoral Students of Computer Science and Technology

课程类别 Categories		课程编号 Course No	课程名称 Course Name	学时 Hours	学分 Credits	开课学期 Term	备注 Note
学位课程 11 学分 Required course of the degree 11Credits	公共课程 General Courses	2015LXS01	*汉语 I Chinese Language I	32	2	秋 fall	必修 Required Course
		2015LXS03	*中国概况 Introduction to China	32	2	秋 fall	
	专业课程 Major Courses	2017JX27	学科前沿专题 Modern Science of the Discipline	16	1	秋 fall	必修 Required Course
		2017JX28	数据管理与分析技术 Data Management & Analysis Technologies	32	2	秋 fall	选修 6 学分 6 Credits at least
		2017JX19	高级逻辑 Advanced Logic	32	2	秋 fall	
		2017JX20	可计算性与计算复杂性 Computability & Computational Complexity	32	2	秋 fall	
		2017JX21	分布计算与分布式系统 Distributed Computing & Systems	32	2	秋 fall	
		2017JX22	科学计算可视化 Visualization in Scientific Computing	32	2	春 spring	
		2017JX23	数字媒体技术 Digital Media Technology	32	2	春 spring	
非学位课程 4 学分 Non-required course of the degree 4 Credits		2015LXS07	科技论文写作 Academic Paper Writing	32	2	秋 fall	必修课 RequiredCourse
		2017JX24	Web 知识表示 Knowledge Representation on the Web	32	2	秋 fall	选修 2 学分 2 Credits at least
		2015LXS05	跨学科选修 Interdisciplinary Elective	32	2		
		2017JX25	人工神经网络 Artificial Neural Networks	32	2	春 spring	
		2017JX26	新型软件体系结构 Novel Software Architecture	32	2	春 spring	
		2017JX16	模型检验 Model Checking	32	2	秋 fall	
教学环节 Academic Activities	学术活动 Seminar and Conferences						必修 Required Course
	科学研究 Scientific Research						
	文献阅读与综述 Literature Reading and Reviewing						

土木工程（0814）

学科门类：工学（08）一级学科：土木工程（0814）

一、专业描述

土木工程是一门关于基础建设的规划、建造和维护的学科。土木工程学科的特点是：以数学、力学、地质学和工程科学为基础，解决基础建设中的实际问题，强调科学素养和工程专业知识的综合运用。土木工程在大型基础设施建设如水利工程、城市建设、铁路公路、港口航道等工程领域具有广泛的应用。

河海大学土木工程学科是为江苏省一级重点学科，学科从属于土木与交通学院，前身可以追溯到 1922 年河海工程专门学校设立的“结构部”和“路工学部”。含岩土工程、结构工程、防灾减灾工程及防护工程、桥梁与隧道工程等四个二级学科。其中岩土工程学科于 1988 年被评为国家级重点学科（全国仅有两个）。以土木工程学科为依托，建立了岩土力学与堤坝工程教育部重点实验室、教育部国家外专局“堤坝工程安全与减灾学科创新引智基地”、江苏省岩土工程技术工程研究中心、江苏省建筑物裂缝控制工程技术研究中心、江苏省钢结构工程技术研究中心等平台。土木工程学科目前有近百名教学科研人员，其中包括 17 名教授，31 名博导。近年来承担国家“973”、“863”计划课题、国家科技支撑计划、国家自然基金重点与面上项目及重大工程科技项目等 200 多项，承接科研经费超过 1.6 亿元，获国家科技进步一等奖、二等奖、国家技术发明二等奖及省部级科学技术奖 50 多项。

二、培养目标

土木工程专业博士生的培养目标为：培养从事铁路、公路、水利等工程和堤坝、房屋、桥梁、隧道、边坡、地下工程研究工作的高层次专门人才。毕业生应具有坚实的数学、力学、地质学理论基础、系统的工程专业知识，和对复杂的工程问题正确建模分析的能力，能熟练运用现代基础理论和先进的计算方法及实验技术手段开展科学研究，能够胜任大型复杂工程的技术研究开发以及高等院校和研究机构的教学科研工作。

土木与交通学院可为学生提供良好的学术环境，学生将在资深教授（博导）的指导下，结合导师的研究课题，掌握土木工程领域的新问题与新进展，鼓励学生应用获得的知识和技能解决实际问题的能力，并在所研究的领域取得创新性成果。

三、研究方向

1、岩土工程

2、结构工程

3、桥梁与隧道工程

4、防灾与减灾工程

四、申请条件

土木工程全英文专业博士生申请人需要满足以下条件:

1．已在我国认可的海内外高校或学术机构获得硕士学位者。

2．能够用英语进行课程学习、阅读文献和进行学术写作，能够用英语进行日常交流。

五、培养年限

攻读博士学位的标准学制为 4 年，实行弹性学制，学习年限最短不低于 3 年，最长不超过 6 年。

六、学分要求和课程设置

本专业博士留学研究生课程总学分为 15 学分，其中学位课程为 11 学分，非学位课程为 4 学分。另设教学环节。具体开设课程见附表。

Civil Engineering（0814）

Discipline：Engineering（08）

First-Class discipline: Civil Engineering（0814）

1. Discipline Description

Civil Engineering is a discipline of planning, designing, constructing and maintaining infrastructures. Civil Engineering is based on Mathematics, Mechanics, Geology and other Engineering principles, and is devoted to solutions of problems arising from engineering practices on infrastructures. Civil Engineering highlights the combination of scientific qualities of engineers and comprehensive implementation of professional engineering knowledge. Civil Engineering is widely used in mega-infrastructures, such as hydraulic engineering, city construction, railway and highway engineering, harbor and waterway engineering, etc.

Civil Engineering in Hohai University is a key discipline of Jiangsu Province, and is accommodated in College of Civil and Transportation Engineering (CCTE). CCTE is developed from Department of Structural Engineering and Department of Highway Engineering in Hohai Polytechnic dating back to 1922. CCTE currently consists of Department of Geotechnical Engineering, Structural Engineering, Disaster Prevention and Mitigation Engineering, as well as Bridge and Tunneling Engineering, etc. Geotechnical Engineering in CCTE was awarded as national key discipline in 1988. Based on Civil Engineering discipline, CCTE has founded Key Laboratory of Geomechanics and Embankment Engineering under Ministry of Education, Research center of Geotechnical Engineering of Jiangsu Province, Research center of building crack control technology of Jiangsu Province, as well as Research center of steel structure engineering technology of Jiangsu Province, etc. Currently Civil Engineering discipline has around 100 research faculty and staff members, including 17 professors and 31 famous PhD supervisors. Over the last few years, they have undertaken more than 200 research projects, including the topics funded by “973”, “863” programs and National key technology support program, and priority/general/major research projects funded by the National Natural Science Foundation of China (NSFC). The total research funding exceeds RMB 0.16 billion Yuan. They have won more than 50 awards, including the first and second class prizes of National Science

and Technology (S&T) Progress Awards, the second prizes of National Technological Invention Awards, and Provincial and Ministerial S&T Awards.

2. Program Description

The program in Civil Engineering aims at nurturing high-level professional individuals working on railway, highway and hydraulic engineering, and on embankment, structure, bridge, tunnel, slope as well as underground engineering. The students should be capable of (1) grasping solid fundamental knowledge in the theory of Mathematics, Mechanics, Geology, and systematic engineering professions; (2) modeling and analyzing complex technical problems; (3) using fundamental theory, advanced computational methods and experimental techniques to conduct research; (4) undertaking R&D positions in large complex projects; and (5) excelling in education and research in universities and research institutes.

The program is designed to provide students with an intellectual environment to explore the knowledge, principles and advances in Civil Engineering through research projects under the guidance of established professors (PhD supervisors). Through the program, students have opportunities to develop their problem-solving ability with new knowledge and skills, and to make their own contributions to their research fields.

3. Research Directions

- Geotechnical Engineering
- Structure Engineering
- Bridge and Tunnel Engineering
- Disaster Prevention and Mitigation Engineering

4. Application Requirements

(1) You have received the master degree from the domestic and overseas universities or academic institutions accredited by the Ministry of Education.

(2) You have the ability to read and write academic papers and communicate in English.

5. Educational System and Duration

The doctorate program is 4 years, the duration is minimum 3 years and no more than 6 years.

6. Credits and Courses

A doctoralstudent must take at least 15 credits of courses, including 11 credits of Required course of the degree and 4 credits of Non-required course of the degree.Module structure of the doctorate program of Civil Engineering is listed below.

土木工程全英文留学博士研究生课程设置

Courses for Doctoral students of Civil Engineering

课程类别 Categories		课程编号 No	课程名称 Course	学时 Hours	学分 Credit	开课学期 Term	备注 Note
学位课程 11 学分 Required course of the degree 11 Credits	公共课程 General Courses	2015LXS01	汉语 I Chinese LanguageI	32	2	秋 fall	必修 Required Course
		2015LXS03	中国概况 Introduction to China	32	2	秋 fall	
	基础课程 Basic Courses	2015JC02	应用数学 Applied Mathematics	64	4	秋 fall	选修 4 学分 4 Credits at least
		2015JC05	偏微分方程的近代方法 Modern Methods in PDE	32	2	秋 fall	
	专业课程 Major Courses	2015TM01	土木工程学科前沿专题讲座 Special Topic on Civil Mechanics	16	1	春 spring	必修
		2015LC02	高等计算力学 Advanced Computational Mechanics	32	2	春 spring	选修 2 学分 2Credits at least
		2015TM02	高等岩土力学 Advanced Soil and Rock Mechanics	64	4	春 spring	
		2015TM03	高等结构动力学 Advanced Structural Dynamics	32	2	春 spring	
非学位课程 4 学分 Non-required course of the degree 4 Credits		2015TM04	岩土工程风险与可靠性分析 Risk and Reliability in Geotechnical Engineering	32	2	春 spring	选修 4 学分 4 Credits at least
		2015TM05	现代土木工程数值方法 Numerical Method in Modern Civil Engineering	32	2	春 spring	
		2015LXS07	英文科技写作 The Art of Scientific Presentation and Writing in English	32	2	春 spring	
		2015LXS05	跨一级学科选修 A course in other disciplines	32	2		
		2015LXS04	第二外国语（除母语与汉语外）	32	2		
教学环节 Academic Activities		学术活动 Seminar and Conferences					必修 Required Course
		科学研究 Scientific Research					
		文献阅读与综述 Literature Reading and Reviewing					

土木工程材料（0814Z2）

学科门类：工学（08）一级学科：土木工程（0814）

一、专业描述

河海大学土木工程材料学科设置于 2003 年，是材料科学与土木工程技术交叉发展起来的一门分支学科，服务于土木、交通、水利、电力等工程。河海大学材料科学与工程学科始建于 1952 年，由建筑材料发展形成，是学校重点建设学科。1983 年开始招收“水工材料”硕士研究生，1986 年获全国第一批“建筑材料”硕士点，2006 年获“材料科学与工程”一级学科硕士点。现有专任教师 40 余人，其中 90%以上具有博士学位，60%以上具有一年以上海外进修经历。

近年来，本学科紧密结合地方和行业发展需求，依托河海大学优势学科平台建设，承担了大量纵、横向科研课题。在大坝、桥梁、轨道交通、矿井等工程的高性能混凝土研究与应用，重大混凝土材料的力学特性与本构关系，结构修复防护新材料新技术，新型墙体材料的研制开发，利用固体废料制造工程新材料及工程材料和工程结构的检测评估与修复加固，高性能金属结构件及其使役性能提升等方面取得了显著成果，形成了学科优势和特色。

二、培养目标

掌握木木工程材料学科领域内坚实宽广的基础理论、系统深入的专门知识和技能方法；具有较高的英语水平和计算机应用能力，对土木工程材料学科的现状和发展趋势有深入全面的了解，具有独立与创

造性从事本学科科学研究和有效解决工程实际技术问题的能力，能够胜任大型复杂工程的技术研究开发、高等院校和研究机构的教学和科研工作。

三、研究方向

1．混凝土材料（Concrete Materials）

2．复合材料（Composites）

3、新型建筑材料（New Construction Materials）

4．金属结构材料（Structural Metallic Materials）

5．土工合成材料（Geotechnical Synthetic Materials）

四、申请条件

1．已在我国认可的海内外高校或学术机构获得硕士学位者。

2．能够用英语进行课程学习、阅读文献和进行学术写作，能够用英语进行日常交流。

五、培养年限

攻读博士学位的标准学制为 4 年，实行弹性学制，学习年限最短不低于 3 年，最长不超过 6 年。

六、学分要求和课程设置

本专业博士留学研究生课程总学分为 15 学分，其中学位课程为 10 学分，非学位课程为 5 学分。另设教学环节。具体开设课程见附表。

CivilEngineering Materials (0814Z2)

Discipline: Engineering (08)

First-Class Discipline: Civil Engineering （0814）

1. Discipline Description

The discipline of Civil Engineering Materials in Hohai University (hereinafter referred to as HHU-CEM) started from 2003. It is a second-grade interdisciplinary field involving Materials Science and Civil Engineering Technique, to provide the material foundation and technical guides for civil engineering, transportation engineering, water conservancy and related engineering construction. Having developed and grown from the Department of Building Materials which was founded as early as 1952, Materials Science and Engineering is now the key academic discipline at Hohai University. It launched the first graduate program in Hydraulic Structure Materials for Master's degrees in 1983, was one of the first institutes granted to award Master's degrees in Building Materials in 1986, was authorized to award Master's degrees in Materials Science and Materials Processing Engineering in 1996, established Doctoral program and Master's degree program in Civil Engineering Materials in 2003, was authorized to award the first-grade discipline Master's degree program in Materials Science and Engineering in 2006. Currently HHU-CEM has a strong, stable and dynamic academic team with more than 40 academic staff members. The percentages of faculty members with Ph.D. Degrees and more than 1 year of abroad study or work experience are more than 95% and 60 %, respectively.

With the overall goal of Hohai University to be a high level research university and building up a group of water-cored disciplines to promote interdisciplinary research and form discipline summits, based on advantageous disciplinary platforms such as National Engineering Research Center for High Efficiency Utilization of Water Resources and Engineering Safety, Provincial Research Center for New Hydraulic Materials and Protection Engineering, HHU-CEM is striving to serve the society, to evolve into the world-famous discipline in water conservancy industry and

to become a major base in China for the fundamental research in the field of hydraulic materials to solve key scientific problems, for the technological innovation and high level talented-person cultivation by developing hydraulic engineering-oriented novel marine materials and energy materials as the new growth points. The Discipline of HHU-CEM has unique and distinguishing features in developing high performance concrete materials, studying the durability of materials and exploring novel materials for structural repairment.

The faculty members of HHU-CEM are engaged in various research projects in the areas of preparing and applying high-performance concrete materials (used for building dams, bridges, rail transit and mines), studying the mechanical property of key engineering materials, exploring novel repairing materials and technologies, and developing high performance metallic materials, etc. All these researches greatly promote the development of high performance materials which can prolong the service lives of the major engineering projects and therefore provide a strong technical guarantee for the social and economic development and ecological environment protection. So far, these researches has published hundreds of high quality scientific articles in refereed journals and conference proceedings and received dozens of national, ministerial and provincial awards.

2. Program Description

(1) To have practical, realistic and scientific attitude, and to generate proper, meticulous and honest academic atmosphere; to connect theory with practice; to be good at intensive study and teamwork.

(2) To thoroughly command fundamental and broad theories, as well as systemic and in-depth professional knowledge of MaterialsScience and Civil Engineering Technology; to be able to perform scientific or engineering work independently and creatively.

(3) To completely understand the current situation and future trend of MaterialsScience and Civil Engineering Technologyand the latest development of relevant research fields; to be capable of performing teaching and technology management in relevant fields.

3. Research Directions

- Concrete Materials
- Composites
- New Construction Materials
- Structural Metallic Materials
- Geotechnical Synthetic Materials

4. Application Requirements

(1) You have received the master degree from the domestic and overseas universities or academic institutions accredited by the Ministry of Education.

(2) You have the ability to read and write academic papers and communicate in English.

5. Educational System and Duration

The doctorate program is 4 years, the duration is minimum 3 years and no more than 6 years.

6. Credits and Courses

A doctoralstudent must take at least 15 credits of courses, including 10 credits of required course of the degree and 5 credits of Non-required course of the degree.

土木工程材料全英文留学博士研究生课程设置

Courses for Doctoral Students of CivilEngineering Materials

课程类别 Categories		课程编号 Course No	课程名称 Course Name	学时 Hours	学分 Credits	开课学期 Term	备注 Note
学位课 10 学分 Required course of the degree 10 Credits	公共课程 General Courses	2015LXS01	*汉语 Chinese Language I	32	2	秋 fall	必修课 Required Course
		2015LXS03	*中国概况 Introduction to China	32	2	秋 fall	
	专业基础课程 Major BasicCourses	2015JC02	应用数学 Applied Mathematics	64	4	春 spring	选修 2 学分 2Credits at least
		2015JC05	偏微分方程近代方法 Modern Methods in Partial Differential Equations	32	2	秋 fall	
		2015JC07	可靠性分析 Reliability Analysis	32	2	秋 fall	
	专业课程 Major Courses	2017LC11	土木工程材料学科前沿专题 Special Topic inCivil Engineering Materials	32	2	春 spring	必修课 Required Course
		2017LC02	材料形变与断裂 Plastic Deformation and Fracture	32	2	春 spring	选修 2 学分 2Credits at least
		2017LC03	现代混凝土技术 Modern Concrete Technology	32	2	春 spring	
		2017LC04	新型复合材料 New Composite Materials	32	2	春 spring	
非学位课 5 学分 Non-required course of the degree 5 Credits		2015LXS07	英文科技写作 The Art of Scientific Presentation and Writing in English	32	2	春 spring	必修课 Required Course
		2015LXS04	*第二外国语 Second Foreign Language (without general courses)	32	2		选修 3 学分 3Credits at least
		2017LC05	材料表面与界面 Surface and Interface of Materials	32	2	春 spring	
		任选本一级学科内博士非必修课程 Non-required Doctoral Courses of the First-level Discipline		32	2		
		跨一级学科选修博士课程 Non-general Doctoral Courses of Other First-level disciplines		32	2		
教学环节 Academic Activities		学术活动 Seminar and Conferences					必修 Required Course
		科学研究 Scientific Research					
		文献阅读与综述 Literature Reading and Reviewing					

水文学及水资源（081501）

学科门类：工学（08）一级学科：水利工程（0815）

一、专业描述

水文学及水资源专业主要研究地球上水的形成、分布和运动规律，以及水旱灾害防治、水资源开发利用、水环境改善与保护和水利工程运行与管理的基本理论与技术方法。它既有基础科学的本质，又有应用科学的内涵，是水利学科的重要组成部分。在人类认识自然、适应自然和改造自然的实践中，水文学及水资源学科具有极其重要的作用。

1952 年，著名水文学家刘光文教授等在华东水利学院（河海大学前身）创建了我国第一个水文学及水资源学科。1981 年首批获得学士、硕士和博士学位授予权，1988、2002、2007 年连续三次被批准为国家重点学科（全国唯一），1990 年获得世行重点学科建设项目的资助，1993 年建成水资源开发利用国家专业实验室，1996 年列入“211 工程”重点学科建设项目，1997 年联合国教科文组织通过专门议案，在我校设立国际水文水资源及环境培训与研究中心，2001 年批准设立水资源开发教育部重点实验室，并列入“十五”“211 工程”重点学科建设项目，2004 年批准设立水文水资源与水利工程科学国家重点实验室。2005 年获批建设水资源高效利用与工程安全国家工程研究中心。

河海大学水文学及水资源学科具有十分显著的优势：学科特色显著、学科梯队完整、学科平台基础雄厚。在 2002 年教育部组织的学

科评审中，本学科综合实力再次位居全国第一。水文学及水资源学科具有一支理论基础深厚、实践经验丰富的学术带头人和学术骨干队伍，现有教学和科研人员 60 多人，其中教授 30 多人，副教授 21 人，85%的教师具有博士学位。围绕“水文特色，国际一流”建设目标，自“十一五”以来，本学科主持与承担了 766 项科研项目，经费总额 3.38 亿元，发表论文 2200 余篇，出版著作和教材 50 余部，获部省级以上科技奖 44 项，其中国家科技奖 2 项。河海大学水文学及水资源学科还接受联合国教科文组织（UNESCO）和世界气象组织（WMO）的委托，为 30 多个国家培养近 200 多名高级水文水资源及水环境人才。

二、培养目标

水文学及水资源专业全英文学术型博士研究生培养目标：培养在水文学及水资源学科领域内掌握坚实宽广的基础理论和系统深入的专门知识，全面深入了解水文科学的现状和发展趋势，具备敏锐宽广的国际视野、严谨慎密的科学思维、诚信求实的科学精神、积极主动的团队合作精神，具有独立从事科学研究工作的能力并做出创造性成果，能够熟练应用计算机开展科学研究和英语进行学术交流，了解中国文化并初步具备汉语日常交流能力的高层次学术型人才。

本学科将为学生提供良好的学术环境，使学生在资深教授（博导）的指导下，探索水循环及水资源演变机理，通过结合研究课题，应用获得的知识和技能解决实际问题，并在所研究的领域贡献创新性成果。

三、研究方向

水文学及水资源专业全英文博士生培养计划包括（但不限于）以

下研究方向：

1、水文物理规律模拟及水文预报；

2、水文不确定性理论与应用；

3、水资源系统规划及可持续利用；

4、地下水系统理论与调控；

5、水信息理论与技术；

6、生态水文与环境水文。

四、申请条件

水文学及水资源全英文专业博士生申请人需要满足以下条件:

1．已在我国认可的海内外高校或学术机构获得硕士学位者。

2．能够用英语进行课程学习、阅读文献和进行学术写作，能够用英语进行日常交流。

五、培养年限

攻读博士学位的标准学制为 4 年，实行弹性学制，学习年限最短不低于 3 年，最长不超过 6 年。

六、学分要求和课程设置

本专业博士留学研究生课程总学分为 15 学分，其中学位课程为 11 学分，非学位课程为 4 学分。另设教学环节。具体开设课程见附表。

Hydrology and Water Resources（081501）

Discipline: Engineering(08）

First-Class Discipline：Hydrology and Water Resources（0815）

1. Discipline Description

Hydrology and water resources is a discipline that mainly studies the formation, distribution and movement of water on the earth. It also studies the fundamental theory and technique methods on flood/drought prevention, water resources development and utilization, aquatic environment protection and, hydraulic project operation and management. As an important branch of the discipline of hydraulic engineering, hydrology and water resources has the nature of both basic science and applied science. The discipline of hydrology and water resources plays an important role in the practices of understanding the nature, adapting to the nature and transforming the nature.

The first discipline of hydrology and water resources in China was founded at East China Technical University of Water Resources (the former Hohai University) in 1952 by the renowned hydrological scientist Prof. Liu Guangwen. The discipline was qualified for bachelor, master and doctoral degree granting in 1981, and was authorized as national key discipline in 1988, 2002 and 2007. In 1990, it was funded by World Bank's Key Discipline Development Program. National Specialized Laboratory of Water Resources Development and Utilization was founded in 1993. In 1996 the discipline of Hydrology and Water Resources was sponsored by the Key Discipline Construction Program of "211" Project. In 1997, UNESCO established the International Training and Research Center for Hydrology-Water Resources and Environment at Hohai University. In 2001, the Ministry of Education's Key Laboratory of Water Resources Development was established in Hohai University, and in the same year the discipline of hydrology and water resources was enrolled in the Key Discipline Construction Program under the sponsorship of the Tenth Five-Year National Plan and "211" Project. In 2004 and 2005, State Key Laboratory of Hydrology-Water Resources and Hydraulic Engineering Sciences and National Engineering Research Center of Water Resources Efficient Utilization and Engineering Safety were founded respectively.

The discipline of hydrology and water resources has significant advantages with distinctive academic characteristics, a comprehensive academic team and solid academic foundation. According to the evaluation by the Ministry of Education in 2002, the discipline was ranked as the first in China. The discipline of Hydrology and Water Resources has principal investigators and a team of academic cadre with solid theoretical foundation and rich academic experiences. Currently the discipline has 60 faculties including over 30 professors and 21 associate professors, 85% of which has the doctor's degree. Since the Eleventh Five-Year National Plan, the discipline has undertaken 766 research projects with total funds of 338 million Yuan, and published 2200 papers and over 50 academic and course books. In addition, the discipline received 44 prizes, including 2 National Prizes for Progress in Science and Technology. Authorized by UNESCO and WMO, the discipline of hydrology and water resources has trained more than 200 senior talents of hydrology, water resources and water environment.

2. Program Description

The program in Hydrology and Water Resources aims at cultivating high-level academic individuals with comprehensive fundamental knowledge and theory of hydrology and water resources, who are capable of getting deep insight into the status and development trend of hydrological science, and have broad international vision, strict scientific thinking, and honest and team-work spirits. The program also aims at training high-level researchers who knows about Chinese culture, are able to use the Chinese language for daily communication, and have the ability of working independently in the scientific research, making creative achievements and using computers and English to carry out scientific research and academic exchange.

The program is designed to provide students with an intellectual environment to explore the knowledge and principles in hydrology and water resources through research project under guidance of an experienced professor (Ph. D. supervisor). Through the program, students have opportunities to develop their problem-solving ability with new knowledge and skills, and to make their own contributions to their research field.

3. Research Directions

The PhD program in Hydrology and Water Resources is mainly oriented (but not limited)

to the following research areas:

- Watershed hydrological simulation and forecasting
- Theory of hydrological uncertainty and application
- Water resources system and sustainable utilization
- Groundwater system theory and control
- Theory and techniques of hydroinformatics
- Ecohydrology and environmental hydrology

4. Application Requirements

(1) You have received the master degree from the domestic and overseas universities or academic institutions accredited by the Ministry of Education.

(2) You have the ability to read and write academic papers and communicate in English.

5. Educational System and Duration

The doctorate program is 4 years, the duration is minimum 3 years and no more than 6 years.

6. Credits and Courses

A doctoralstudent must take at least 15 credits of courses, including 11 credits of Required course of the degree and 4 credits of Non-required course of the degree.Module structure of the doctorate program of Hydrology and Water Resources is listed below.

水文学及水资源全英文留学博士研究生课程设置

Courses for Doctoral Students of Hydrology and Water Resources

课程类别 Categories		课程编号 No	课程名称 Course	学时 Hours	学分 Credit	开课学期 Term	备注 Note
学位课程 11 学分 Required course of the degree 11 Credits	公共课程 General Courses	2015LXS01	*汉语Ⅰ Chinese Language Ⅰ	32	2	秋 fall	必修 RequiredCourse
		2015LXS03	*中国概况 Introduction to China	32	2	秋 fall	
	基础课程 Basic Courses	2015JC02	应用数学 Applied Mathematics	64	4	秋 fall	选修 4 学分 4Credits at least
		2015JC05	偏微分方程的近代方法 Modern Methods in PDE	32	2	秋 fall	
	专业课程 Major Courses	2017SW02	学科前沿专题 Modern Science of the Discipline	16	1	春 Spring	必修 RequiredCourse
		2015SW01	分布式水文模型 Distributed Hydrologic Model	32	2	春 Spring	选修 2 学分 2Credits at least
		2015SW02	高等地下水动力学 Higher Groundwater Dynamics	32	2	春 Spring	
非学位课程 4 学分 Non-required course of the degree 4 Credits		2015SW03	现代水信息技术 Advanced Techniques for Collection of Water Information	48	3	春 Spring	选修 4 学分 4Credits at least
		2015LXS07	英文科技写作 The Art of Scientific Presentation and Writing in English	32	2	秋，春 fall，spring	
		2015LXS05	跨学科选修 A course in other disciplines	32	2		
		2015JC25	程序设计方法 Methods of Programming	32	2	秋 Fall	
教学环节 Academic Activities		学术活动 Seminar and Conferences					必修 RequiredCourse
		科学研究 Scientific Research					
		文献阅读与综述 Literature Reading and Reviewing					

水力学及河流动力学（081502）

学科门类：工学（08）　　一级学科：水利工程（0815）

一、专业描述

河海大学水力学及河流动力学学科 1981 年首批获得硕士、博士学位授予权，1990 年建立博士后流动站，1994 年成为首批江苏省重点学科，2007 年成为国家二级重点学科，也是国家“211 工程”重点建设学科，水资源高效利用与工程安全国家工程研究中心和水文水资源与水利工程科学国家重点实验室是该学科研究支撑平台。

多年来，结合我国重大水利工程建设和河流开发利用的实践，本学科在水工水力学、生态环境水力学和平原河网水动力学研究方面具有明显优势和学科特色。研究领域主要包括工程水力学、泥沙工程与河流管理、水利信息技术、工程渗流及地下水环境、现代流体测试技术等方面，研究成果在我国河流治理、水力发电、水运、给排水、环境生态水利、水土保持等领域得到了广泛应用。

二、培养目标

水力学及河流动力学博士生培养目标为，致力于培养本学科领域的高层次人才。毕业生在本门学科上掌握坚实宽广的基础理论和系统深入的专门知识；具有独立从事科学研究工作的能力，能熟练运用现代基础理论和先进的计算方法及实验技术手段开展科学研究，在科学或专门技术上做出创新性的成果；熟练阅读本专业外文文献，具有较强的英文写作和国际学术交流能力。能够胜任大型复杂工程关键技术的研究开发，高等院校和研究机构的教学科研工作。

三、研究方向

1. 河流管理与生态环境（River Management, Aquatic Ecology and Environment）

2. 工程水力学理论与应用（Theory and Applications of Engineering Hydraulics）

3. 水沙运动理论与工程应用（Flow, Sediment Transportation and Its Application in River Engineering）

4. 工程渗流及地下水环境（Engineering Seepage and Ground Water Environment）

5. 计算水力学及水信息技术（Computational Hydraulics and Hydro informatics）

四、申请条件

1. 已在我国认可的海内外高校或学术机构获得硕士学位者。

2. 能够用英语进行课程学习、阅读文献和进行学术写作，能够用英语进行日常交流。

五、培养年限

攻读博士学位的标准学制为 4 年，实行弹性学制，学习年限最短不低于 3 年，最长不超过 6 年。

六、学分要求和课程设置

本专业博士留学研究生课程总学分为 15 学分，其中学位课程为 11 学分，非学位课程为 4 学分。另设教学环节。具体开设课程见附表。

Hydraulics and River Dynamics（081502）

Discipline: Engineering (08)

First-Class Discipline: Water Conservancy (0815)

1. Discipline Description

The discipline of hydraulics and river dynamics of Hohai University in 1981 was the first batch of master's degree, doctoral degree grant, in 1990 a postdoctoral station was established, in 1994 became the first batch of key disciplines in Jiangsu Province, in 2007 become the national key disciplines. It is also the national "211 Project" key construction disciplines. “National Engineering Research Center of Water Resources Efficient Utilization and Engineering Safety” and “State Key Laboratory of Hydrology-Water Resources and Hydraulic Engineering” are the research support platform of this subject.

Over the years, combined with China's major water conservancy construction and river development and utilization of the practice, the discipline in the hydraulic hydraulics, ecological environment hydraulics and plain river hydrodynamics research has obvious advantages and advanced disciplines characteristics. The research areas include engineering hydraulics, sediment engineering and river management, water information technology, engineering infiltration flow and groundwater environment, modern fluid testing technology and so on. Research results have been widely used in China's river management, hydropower, water transportation, water supply and drainage, environmental ecological water conservancy, soil and water conservation and many other fields.

2. Program Description

The program in Hydraulics and River Dynamics aims to cultivate high-level talent PhD students in this field. Graduates in the discipline can master a solid broad basic theory and system of in-depth expertise as well as have the ability to work independently in scientific research. Besides, they can skillfully use modern basic theory and advanced computing methods and experimental techniques to carry out

scientific research, and can be expertise to make innovative achievements. Graduates will be proficiency in reading the professional foreign literature, with strong English writing and international academic communication skills. They can be competent for large-scale complex engineering key technology research and development, and can be qualified for higher education institutions and research institutions of teaching and research work.

3. Research Directions

- River Management, Aquatic Ecology and Environment
- Theory and Applications of Engineering Hydraulics
- Flow, Sediment Transportation and It Application in River Engineering
- Engineering Seepage and Ground water Environment
- Computational Hydraulics and Hydro informatics

4. Application Requirements

(1) You have received the master degree from the domestic and overseas universities or academic institutions accredited by the Ministry of Education.

(2) You have the ability to read and write academic papers and communicate in English.

5. Educational System and Duration

The doctorate program is 4 years, the duration is minimum 3 years and no more than 6 years.

6. Credits and Courses

A doctoral student must take at least 15 credits of courses, including 11 credits of Required course of the degree and 4 credits of Non-required course of the degree.

水力学及河流动力学全英文留学博士研究生课程设置

Courses for Doctoral Students of Hydraulics and River Dynamics

课程类别 Categories		课程编号 No	课程名称 Course	学时 Hours	学分 Credit	开课学期 Term	备注 Note
学位课程 11 学分 Required course of the degree 11 Credits	公共课程 General Courses	2015LXS01	*汉语Ⅰ Chinese Language Ⅰ	32	2	秋 fall	必修 Required Course
		2015LXS03	*中国概况 Introduction to China	32	2	秋 fall	
	基础课程 Basic Courses	2015JC02	应用数学 Applied Mathematics	64	4	秋 fall	选修 4 学分 4 Credits at least
		2015JC03	数值分析 Numerical Analysis	48	3	秋 fall	
		2015JC04	最优化方法 Optimization Methods	32	2	秋 fall	
	专业课程 Major Courses	2017SD13	水利工程学科前沿专题 Special Topics on Water Conservancy	16	1	春 Spring	必修 Required Course
		2017SD14	高等河流动力学 Advanced River Mechanics	32	2	春 Spring	选修 2 学分 2 Credits at least
		2017SD16	工程紊流的数值模拟方法及应用 Numerical Simulation Methods and Applications for Engineering Turbulence	32	2	秋 fall	
		2017SD04	工程水动力学 Engineering Hydrodynamics	32	2	春 Spring	
		2017SD15	多孔介质流体动力学 Dynamics of Fluids in Porous Media	32	2	春 Spring	
非学位课程 4 学分 Non-required course of the degree 4 Credits		2015LXS07	英文科技写作 The Art of Scientific Presentation and Writing in English	32	2	秋、春 Fall/Spring	必修 Required Course
		2015LXS05	跨一级学科选修博士课程 A course in other disciplines	32	2		必修 Required Course
教学环节 Academic Activities		学术活动 Seminar and Conferences					必修 Required Course
		科学研究 Scientific Research					
		文献阅读与综述 Literature Reading and Reviewing					

水工结构工程（081503）

学科门类：工学（08）一级学科：水利工程（0815）

一、专业描述

河海大学水工结构工程学科创建于1952年，1981年获硕士、博士学位授予权，1990年建立博士后流动站，1996年被确定为水利部重点学科，1997年为成为国家“211工程”重点建设学科，1999年设立教育部长江学者奖励计划特聘教授岗位，2001年被评为国家重点学科，同年成立教育部水利水电工程安全工程研究中心，2002年成立了南京土工合成材料工程技术研究中心。

我校水工结构工程学科注重基础及应用基础研究，紧跟国际前沿，围绕国家重大需求，先后承担了国家自然科学基金、国家973计划、国家科技支撑计划、国家重点研发计划以及长江三峡、二滩、小湾、小浪底、锦屏、糯扎渡、南水北调等众多重大水利水电工程的科研课题，取得了大量科研成果及显著的社会和经济效益。

二、培养目标

本学科旨在培养本学科领域的高层次人才。在本门学科上掌握坚实宽广的基础理论和系统深入的专门知识；具有独立从事科学研究工作的能力；在科学或专门技术上做出创造性的成果。熟练阅读本专业外文文献，具有较强的英文写作和国际学术交流能力。

三、研究方向

1. 高坝及坝基安全监控理论、方法和技术（Safety Monitoring

Theories, Methods and Techniques for High Dams and Their Foundations）

2. 坝工设计计算理论与试验技术（Computation Theories and Experimental Techniques for Dam Designs）

3. 高边坡及地下工程（High Slopes and Underground Engineering）

4. 大型水闸、船闸及输水结构（Sluices, Ship Locks and Water Transport Structures）

5. 水工混凝土新材料新工艺（Materials and Construction for Hydraulic Concrete Structures）

四、申请条件

1. 已在我国认可的海内外高校或学术机构获得硕士学位者。

2. 能够用英语进行课程学习、阅读文献和进行学术写作，能够用英语进行日常交流。

五、培养年限

攻读博士学位的标准学制为 4 年，实行弹性学制，学习年限最短不低于 3 年，最长不超过 6 年。

六、学分要求和课程设置

本专业博士留学研究生课程总学分为 15 学分，其中学位课程为 11 学分，非学位课程为 4 学分。另设教学环节。具体开设课程见附表。

Hydraulic Structure Engineering（081503）

Discipline:Engineering(08）

First-Class Discipline：Water Conservancy（0815）

1. Discipline Description

The discipline of Hydraulic Structure Engineering in Hohai University was founded in 1952.The discipline was qualified for awarding master and doctoral degree in 1981 and the post-doctor research workshop was established in 1990. In 1996, the discipline was awarded a key discipline of Ministry of Water Resources and was chosen as a key discipline of national "211 Project" in 1997.The se-tup of "Cheung Kong Scholars Program" Distinguished Professor position of the Ministry of Education was approved in 1999.The discipline of hydraulic structure engineering was awarded a national key discipline in 2001,and safety engineering research center of water conservancy and hydropower engineering of the Ministry of Education was established in the same year. Nanjing geosynthetics engineering technology research center was set up in 2002.

The discipline of Hydraulic Structure Engineering has been focusing on basic and applied research, following closely the international development in this field and meeting the national strategic demand. Many high-level research missions were accomplished, such as National Natural Science Foundation of China, National 973 Program, National Science-Technology Support Program and National Key R & D Plan, as well as some major water conservancy and hydropower engineering research projects, for instance, Yangtze River Three Gorges, Ertan, Xiaowan, Xiaolangdi, Jinping, Nuozhadu hydropower station and South-to-North Water Diversion project. A large number of scientific research achievements and significant social and economic benefits were obtained.

2. Program Description

The program aims at cultivating high-level professional individuals in the fields of hydraulic structure engineering. The candidate should: 1) be equipped with

comprehensive fundamental knowledge and theory in this discipline; 2) be capable of doing research work independently in the scientific research; 3) make creative achievements in scientific and expertise fields; 4) read the English documents and papers proficiently in this discipline and related fields, and have a strong ability to write English documents and be active in the international academy communication.

3. Research Directions

- Safety Monitoring Theories, Methods and Techniques for High Dams and Their Foundations
- Computation Theories and Experimental Techniques for Dam Designs
- High Slopes and Underground Engineering
- Sluices, Ship Locks and Water Transport Structures
- Materials and Construction for Hydraulic Concrete Structures

4. Application Requirements

(1) You have received the master degree from the domestic and overseas universities or academic institutions accredited by the Ministry of Education.

(2) You have the ability to read and write academic papers and communicate in English.

5. Educational System and Duration

The doctorate program is 4 years, the duration is minimum 3 years and no more than 6 years.

6. Credits and Courses

A doctoral student must take at least 15 credits of courses, including 11 credits of Required course of the degree and 4 credits of Non-required course of the degree.

水工结构工程全英文留学博士研究生课程设置

Courses for Doctoral Students of Hydraulics Structure Engineering

课程类别 Categories		课程编号 No	课程名称 Course	学时 Hours	学分 Credit	开课学期 Term	备注 Note
学位课程 11 学分 Required course of the degree 11 Credits	公共课程 General Courses	2015LXS01	汉语 Chinese Language	32	2	秋 fall	必修 RequiredCourse
		2015LXS03	中国概况 Introduction to China	32	2	秋 fall	
	基础课程 Basic Courses	2015JC02	应用数学 Applied Mathematics	64	4	春 Spring	选修 4 学分 4 Credits at least
		2015JC03	数值分析 Numerical Analysis	48	3	秋 fall	
	专业课程 Major Courses	2017SD13	水利工程学科前沿专题 Special Topics on Water Conservancy	16	1	春 Spring	必修 RequiredCourse
		2017SD17	水工建筑物安全监控理论及其应用 Safety Monitoring Theory and Its Application for Hydraulic Structures	32	2	春 Spring	选修 2 学分 2 Credits at least
		2017SD18	离散单元法与粒状体力学 The Discrete Element Method and Mechanics of Granular Materials	32	2	春 Spring	
		2017SD19	水利工程安全管理 Safety Management of water Conservancy Project	32	2	秋 fall	
非学位课程 4 学分 Non-required course of the degree 4 Credits		2015LXS07	英文科技写作 The Art of Scientific Presentation and Writing in English	32	2	秋、春 fall, spring	必修 RequiredCourse
		2015LXS05	跨一级学科选修博士课程 A course in other disciplines	32	2		
教学环节 Academic Activities		学术活动 Seminar and Conferences					必修 RequiredCourse
		科学研究 Scientific Research					
		文献阅读与综述 Literature Reading and Reviewing					

水利水电工程（081504）

学科门类：工学（08）一级学科：水利工程（0815）

一、专业描述

河海大学水利水电工程学科创建于1952年，1984年取得硕士学位授予权，1993年取得博士学位授予权，1996年被评为水利部重点学科，2007年成为国家二级重点学科，也是国家“211工程”重点建设学科和江苏省优势学科建设工程的重点学科，水文水资源与水利工程科学国家重点实验室和水资源高效利用与工程安全国家工程研究中心是该学科研究主要的支撑平台。学科现有10余名博士生导师，近20名硕士生导师，另有近10名校外兼职博导。

本学科以我国大型水电站、泵站、抽水蓄能电站和潮汐电站，以及风力发电等新能源为主要研究对象，着重研究和解决水利水电工程以及新能源的规划、设计理论及关键技术，注重源头创新和均衡发展，为我国的水利水电和新能源建设做出了重要贡献.本学科积极推进优势学科创新平台建设，承担了多项“973”项目、“863”项目、国家自然科学基金项目等部省级重大科技项目，以及各类科研项目，在理论研究和工程应用等方面取得了多项创新性研究成果。

二、培养目标

水利水电工程博士生培养目标为，致力于培养本学科领域的高层次人才。毕业生在本门学科上掌握坚实宽广的基础理论和系统深入的专门知识；具有独立从事科学研究工作的能力，能熟练运用现代基础理论和先进的计算方法及实验技术手段开展科学研究，在科学或专门

技术上做出创新性的成果；熟练阅读本专业外文文献，具有较强的英文写作和国际学术交流能力。能够胜任大型复杂工程关键技术的研究开发，高等院校和研究机构的教学科研工作。

三、研究方向

1. 水利水电系统规划与发展战略（Water Resources and Hydropower System Planning and Development Strategy）
2. 水电站和泵站水力学/结构（Hydraulics/Structure of Hydropower Plant and Pump Station）
3. 水力机组安全控制及过渡过程（Hydraulic Transient and Safety Control of Hydraulic Unit）
4. 抽水蓄能及新能源技术（Technique of Pumped-Storage Project and Renewable Energy）

四、申请条件

1. 已在我国认可的海内外高校或学术机构获得硕士学位者。

2. 能够用英语进行课程学习、阅读文献和进行学术写作，能够用英语进行日常交流。

五、培养年限

攻读博士学位的标准学制为4年，实行弹性学制，学习年限最短不低于3年，最长不超过6年。

六、学分要求和课程设置

博士留学研究生课程总学分为15学分,其中学位课程为11学分，非学位课程为4学分。另设教学环节。具体开设课程见附表。

Water Conservancy and Hydropower Engineering（081504）

Discipline: Engineering (08)

First-Class Discipline: Water Conservancy (0815)

1. Discipline Description

The discipline of Water Conservancy and Hydropower Engineering at Hohai University was founded in 1952. This discipline was granted the right to award Master degree in 1984. In 1993, the right to award Ph. Doctor Degree was granted to this discipline and the post-doctor research workshop was established. In 1996, this discipline was awarded the key discipline of the Ministry of Water resources of the People's Republic of China and granted as the National Key Discipline in 2007. This discipline is also the key discipline for the "211" National Construction Project and the Priority Academic Program Development of Jiangsu Higher Education Institutions. The main research platforms of this discipline include the State Key Laboratory of Hydrology-Water Resources and Hydraulic Engineering, and the National Engineering Research Center of Water Resources Efficient Utilization and Engineering Safety. In this discipline, there are more than 10 supervisors for Ph. D., nearly 20 supervisors for Master Degree, and about 10 off campus part-time supervisors for Ph. D.

All the research works in this discipline mainly focus on the large hydropower stations, the pumping stations, the pumped-storage power stations, the tide hydropower stations and the wind power etc., aim to investigate and solve the key technology problems in these hydraulic projects including energy planning, design theories, operation control etc., and emphasize the innovative and original research at the premise of balanced development. All the achievement has made great contribution to the development of waterpower engineering and new energy in the world. This discipline actively promotes the projects Funded by the Priority Academic Program Development, and is fully involved in the research for all the pumped-storage power stations and most of the great hydropower stations in China,

and undertakes “973” projects, “863” projects, the projects from the National Natural Science Foundation of China and other research works, and has gained many innovative research achievements in basic theories.

2. Program Description

The program in Water Conservancy and Hydropower Engineering aims to cultivate high-level talent PhD students in this field. Graduates in the discipline can master a solid broad basic theory and system of in-depth expertise as well as have the ability to work independently in scientific research. Besides, they can skillfully use modern basic theory and advanced computing methods and experimental techniques to carry out scientific research, and can use expertise to make innovative achievements. Graduates will be proficient in reading the professional foreign literature, with strong English writing and international academic communication skills. They can be competent for large-scale complex engineering key technology research and development, and can be qualified for higher education institutions and research institutions of teaching and research work.

3. Research Directions

- Water Resources and Hydropower System Planning and Development Strategy
- Hydraulics/Structure of Hydropower Plant and Pump Station
- Hydraulic Transient and Safety Control of Hydraulic Unit
- Technique of Pumped-storage Project and Renewable Energy

4. Application Requirements

(1) You have received the master degree from the domestic and overseas universities or academic institutions accredited by the Ministry of Education.

(2) You have the ability to read and write academic papers and communicate in English.

5. Educational System and Duration

The doctorate program is 4 years, the duration is minimum 3 years and no more than 6 years.

6. Credits and Courses

A doctoral student must take at least 15 credits of courses, including 11 credits of Required course of the degree and 4 credits of Non-required course of the degree.

水利水电工程全英文留学博士研究生课程设置

Courses for Doctoral Students of Water Conservancy and Hydropower Engineering

课程类别 Categories		课程编号 No	课程名称 Course	学时 Hours	学分 Credit	开课学期 Term	备注 Note
学位课程 11 学分 Required course of the degree 11 Credits	公共课程 General Courses	2015LXS01	*汉语Ⅰ Chinese Language Ⅰ	32	2	秋 fall	必修 RequiredCourse
		2015LXS03	*中国概况 Introduction to China	32	2	秋 fall	
	基础课程 Basic Courses	2015JC02	应用数学 Applied Mathematics	64	4	秋 fall	选修 4 学分 4 Credits at least
		2015JC03	数值分析 Numerical Analysis	48	3	秋 fall	
		2015JC04	最优化方法 Optimization Methods	32	2	秋 fall	
	专业课程 Major Courses	2017SD13	水利工程学科前沿专题 Special Topics on Water Conservancy	16	1	春 Spring	必修 RequiredCourse
		2015SD15	瞬变流（二） Fluid Transients （II）	32	2	春 Spring	选修 2 学分 2 Credits at least
		2015SD16	水利水电系统规划新理论 New Theory of Water Resources and Hydropower System Planning	32	2	春 Spring	
非学位课程 4 学分 Non-required course of the degree 4 Credits		2015SD17	水力机组测试与诊断 Detection & Fault Diagnosis of Hydroelectric Units	32	2	春 Spring	选修 2 学分 2 Credits at least
		2015LXS07	英文科技写作 The Art of Scientific Presentation and Writing in English	32	2	秋、春 Fall or Spring	
		2015LXS05	跨一级学科选修博士课程 A course in other disciplines	32	2		必修 RequiredCourse
教学环节 Academic Activities		学术活动 Seminar and Conferences					必修 RequiredCourse
		科学研究 Scientific Research					
		文献阅读与综述 Literature Reading and Reviewing					

港口、海岸及近海工程(081505)

学科门类：工学（08）一级学科：水利工程（0815）

一、专业描述

港口、海岸及近海工程学科始建于 1952 年，1981 年海岸工程专业成为全国首批博士学位授权点，1988 年近海工程专业成为硕士学位授权点，1990 年港口航道工程专业成为全国首个博士学位授权点，2007 年港口、海岸及近海工程学科被评为国家重点学科，是国家“211 工程”、“全球水循环与国家水安全”985 优势学科创新平台重点建设学科。所在的一级学科水利工程在 2009 年和 2012 年全国学科评比中获得第一名。

本学科目前拥有水文水资源与水利工程科学国家重点实验室和水资源高效利用与工程安全国家工程研究中心。现有“青年千人”、双聘院士、“教育部新世纪优秀人才”、“江苏省 333 高层次人才”等十余名领军人才。围绕“港航特色，国际一流”建设目标，“十一五”以来，本学科主持与承担了 624 项科研项目，经费总额 2.39 亿元，发表论文 800 余篇，出版著作和教材 30 余部，获部省级以上科技奖 56 项，其中国家科技奖 1 项。研究生就业单位主要有设计院、行业管理部门、科研院所、高等学校等。

二、培养目标

具有实事求是的科学态度和端正严谨的诚信学风，理论联系实际，善于钻研与创新，具有良好的团队合作精神；在港口、海岸及近海工

程学科上掌握坚实宽广的基础理论和系统深入的专门知识；具有独立从事科学研究工作的能力，在科学或专门技术上做出创造性成果。

三、研究方向

1. 河口海岸及近海工程水动力环境
2. 海岸风暴灾害与防灾减灾
3. 港口航道工程泥沙与疏浚
4. 工程结构物及其与周围介质的相互作用
5. 水运工程经济、规划与管理

四、申请条件

港口、海岸及近海工程全英文专业博士生申请人需要满足以下条件:

1．已在我国认可的海内外高校或学术机构获得硕士学位者。

2．能够用英语进行课程学习、阅读文献和进行学术写作，能够用英语进行日常交流。

五、培养年限

攻读博士学位的标准学制为 4 年，实行弹性学制，学习年限最短不低于 3 年，最长不超过 6 年。

六、学分要求和课程设置

本专业博士留学研究生课程总学分为 15 学分，其中学位课程为 11 学分，非学位课程为 4 学分。另设教学环节。具体开设课程见附表。

Harbor，Coastal and Offshore Engineering (081505)

Discipline：Engineering（08）

First-Class Discipline：Water Engineering（0815）

1. Discipline Description

The Harbor, Coastal and Offshore Engineering discipline was founded in 1952 by Yan Kai who was academician of both Chinese Academy of Sciences and Chinese Academy of Engineering. In 1981, Coastal Engineering was granted as one of the first specialties leading to Doctor and Master degrees, and Offshore Engineering was approved as one of the first specialties leading to Master degree. In 1990, Harbor and Waterway Engineering became the very first Doctoral program among the homogeneous subjects in China. In 2007, thediscipline was chosen as a national key disciplineandone of the key construction disciplines by the 985 Innovative Platforms for Key Disciplines Project.

Based on the State Key Laboratory of Hydrology-Water Resources and Hydraulic Engineering and National Engineering Research Center of Water Resources Efficient Utilization and Engineering Safety, the Harbor, Coastal and Offshore Engineeringdiscipline has more than ten leading talents,includingdistinguished professors of Recruitment Program of Global Young Experts, joint-appointed academicians, winners of New Century Excellent Talents Supporting Plan of Ministry of Education and awardees of Jiangsu Province 333 High-level Personnel Training Project.Aiming at "harbor and waterway characteristics, international first-level", the disciplinehosted 624 scientific projects of 239 milliontotal funding, published more than 800academic papers, more than 30 works and teaching materials, won 55 provincial or ministerialScience and Technology Prizes, and 1 National Science and Technology Prize during the 11th Five-Year Plan. The main employers of graduate students are design institutions, management agencies, research institutions and universities.

2. Program Description

The program in Harbor, Coastal and Offshore Engineering aims to cultivate high-level talent PhD students in this field. First, graduates in the discipline must ensure an innovating

with down-to-earth attitude and a good team spirit.Then they can master a solid broad basic theory and system of in-depth expertise as well as have the ability to work independently in scientific research. Besides, they can skillfully use modern basic theory and advanced computing methods and experimental techniques to carry out scientific research, and can be expertise to make innovative achievements.

3. Research Directions

The PhD program in Harbor, Coastal and Offshore Engineeringis mainly oriented (but not limited) to the following research areas:

- Hydrodynamics of estuarine, coastal and offshore engineering
- Coastal storm disaster and its mitigation
- Sedimentationand dredging in harbor and navigation engineering
- Engineering structure and its interaction with surrounding medium
- Economy, planning and management of waterway transportation engineering

4. Application Requirements

(1) You have received the master degree from the domestic and overseas universities or academic institutions accredited by the Ministry of Education.

(2) You have the ability to read and write academic papers and communicate in English.

5. Educational System and Duration

The doctorate program is 4 years, the duration is minimum 3 years and no more than 6 years.

6. Credits and Courses

A doctoral student must take at least 15 credits of courses, including 11 credits of Required course of the degree and 4 credits of Non-required course of the degree. Module structure of the doctorate program of Harbor, Coastal and Offshore Engineering is listed below.

港口、海岸及近海工程全英文留学博士研究生课程设置

Courses for DoctoralStudents of Harbor, Coastal and Offshore Engineering

课程类别 Categories		课程编号 No	课程名称 Course	学时 Hours	学分 Credit	开课学期 Term	备注 Note
学位课程 11 学分 Required course of the degree 11 Credits	公共课程 General Courses	2015LXS01	*汉语Ⅰ Chinese Language	32	2	秋 fall	必修 RequiredCourse
		2015LXS03	*中国概况 Introduction to China	2	2	秋 fall	
	基础课程 Basic Courses	2015JC06	应用泛函分析 Applied Functional Analysis	48	3	秋 fall	选修 4 学分 4 Credits at least
		2015JC05	偏微分方程近代方法 Modern Methods in Partial Differential Equations	32	2	秋 fall	
		2015JC07	可靠性分析 Reliability Analysis	32	2	秋 fall	
	专业课程 Major Courses	2015GH01	*学科前沿专题 Special Topic on Harbor, Coastal and Offshore Engineering	16	1		必修 RequiredCourse
		2015GH02	高等海岸动力学 Advanced Coastal Dynamics	32	2	秋 fall	选修 2 学分 2 Credits at least
		2015GH03	工程结构分析的高等理论与方法 Advanced Theory and Method of Structure Analysis	32	2	春 spring	
非学位课程 4 学分 Non-required course of the degree 4 Credits		2015GH04	港口海岸及近海工程模拟技术 Simulation Technology of Port Coastal and Offshore Engineering	32	2	秋 fall	选修 2 学分 2 Credits at least
		2015LXS07	英文科技写作 The Art of Scientific Presentation and Writing in English	32	2	春 spring	
		2015LXS04	*第二外国语（除母语与汉语外） Second Foreign Language	32	2	春 Spring	必修 RequiredCourse
教学环节 Academic Activities		学术活动 Seminar and Conferences					必修 RequiredCourse
		科学研究 Scientific Research					
		文献阅读与综述 Literature Reading and Reviewing					

大地测量学与测量工程（081601）

学科门类：工学（08）一级学科：测绘科学与技术（0816）

一、专业描述

测绘科学与技术是地球科学的一个分支学科，主要研究内容是对地理表面、空间距离以及海洋深度与阔度进行测量描绘、数据收集与信息整理。大地测量学与测量工程属于测绘科学与技术学科中的一个二级学科，专注于培养具备地面测量、海洋测量、空间测量、摄影测量与遥感以及地图编制等方面的知识的人才，使其能在国民经济各部门从事国家基础测绘建设、陆海空运载工具导航与管理、城市和工程建设、矿产资源勘察与开发、国土资源调查与管理、地图与地理信息系统的设计实施和研究、环境保护与灾害预防等领域的工程测量工作。

河海大学“大地测量学与测量工程”博士点于 2003 年设置，2007 年设立“测绘科学与技术”博士后流动站。学科在各种特殊精度要求的测量技术和方法、安全监控模型和监测系统的网络化理论与方法、安全监控信息管理系统及专家评判系统、卫星导航和精密定位技术、多系统定位信息融合模型与方法、多源遥感自动化测量及水利 GIS 信息化管理等方面研究具有特色和优势。依托测绘工程研究所、遥感空间信息工程研究所、水利建设 3S 技术应用联合实验室（与香港理工大学共建）以及江苏省测绘教学示范中心、测绘工程实验室等平台，具有良好的科研及研究生培养环境。实验室配备先进的测量仪器设备、多种开发平台软件。毕业生的主要就业方向为各类科研机构、高等院

校以及国土、城建、规划等政府相关部门。

二、培养目标

具有实事求是的科学态度和端正严谨的诚信学风，理论联系实际，善于钻研与创新，具有良好的团队合作精神，系统深入地掌握测绘学科领域内基础理论、专门知识和技能方法，能熟练应用一门外语进行科学研究与交流，具有较高计算机应用能力，对测绘学的现状和发展趋势有深入全面的了解，具有独立与创造性从事本学科科学研究和有效解决实际问题的能力，面向测绘工程重大需求的德智体美全面发展的高层次学术型人才。

三、研究方向

大地测量学与测量工程全英文博士生培养计划包括（但不限于）以下研究方向：

1、现代大地测量理论与方法

2、精密工程测量理论与技术

3、形变监测与安全监控理论与技术

4、卫星大地测量及应用

5、现代摄影测量理论与方法

6、多源遥感信息融合及应用

7、虚拟现实技术与三维 GIS

8、卫星精密定位

四、申请条件

大地测量学与测量工程博士生申请人需要满足以下条件：

1. 已在我国认可的海内外高校或学术机构获得硕士学位者。

2. 能够用英语进行课程学习、阅读文献和进行学术写作，能够用英语进行日常交流。

五、培养年限

攻读博士学位的标准学制为 4 年，实行弹性学制，学习年限最短不低于 3 年，最长不超过 6 年。

六、学分要求和课程设置

博士生需要完成总学分为 15 学分的课程学习，其中学位课程为 10 学分，非学位课程为 5 学分。另设教学环节。博士生还必须结合研究课题完成一篇博士论文，并通过答辩。大地测量学与测量工程学科博士课程设置如下表。

Geodesy and Surveying Engineering（081601）

Discipline：Engineering（08）

First-Class Discipline：Surveying and Mapping（0816）

1. Discipline Description

Surveying and Mapping is a branch of Earth Sciences in which the main research content is the measurement and collection of data and information about the physical earth and our environment. Geodesy and Survey Engineering is a sub-discipline of Surveying and Mapping, which focus on training engineering and technicians who have the knowledge of topographic surveys, hydrographic surveys, spatial measurements, photogrammetry and remote sensing, and map compilation. And these professionals are engaged in engineering surveying works such as national basic surveying and mapping projects, vehicle navigation and management, city and engineering constructions, mineral resources exploration and exploitation, territorial resources surveys and management, environmental protection and disaster prevention, and implementation and research of Cartography and Geographic Information Systems.

The Doctoral Program of Geodesy and Survey Engineering of Hohai University was set up in 2003 and the Postdoctoral Research Station in 2007. It has features and advantages in various measurement techniques and methods which has special precision requirements such as control surveys and method of safety monitoring model and monitoring system, safety monitoring information management system and expert evaluation system, satellite navigation and positioning technologies, information fusion model and method of multiple positioning systems, etc.. These platforms, such as the Surveying and Mapping Engineering Institute, the Remote Sensing and Space Information Engineering Institute, the “3S” Technology and Application United Laboratories of Water Conservancy Construction (Cooperating with the Hong Kong Polytechnic University), Surveying and Mapping Engineering Laboratory, provided students with a favorable academic environment.

2. Program Description

The program in Geodesy and Survey Engineering aims at cultivating high-level individuals with solid fundamental knowledge in the field of surveying and mapping and specialized in a particular engineering application.,who are capable of handling complex technical problems in large engineering projects, can undertake research and development project in large engineering companies or teaching and research work in academic institutions. Through the program, students have opportunities to develop their problem-solving ability with new knowledge and skills, and to make their own contributions to their research field.

The program is designed to provide students with an intellectual environment to explore the knowledge and principles in Geodesy and Survey Engineering applications through research project under guidance of an established professor (PhD supervisor). Through the program, students have opportunities to develop their problem-solving ability with new knowledge and skills, and to make their own contributions to their research field.

3. Research Directions

The PhD program in Geodesy and Survey Engineering is mainly oriented (but not limited) to the following research areas:

- Modern Theory and Method of Surveying Engineering
- Theory and Technique of Precise Engineering Surveying
- Deformation Monitoring and Safety Control Theory and Technology
- Satellite Geodesy
- Theory and Method of Modern Photogrammetry
- Fusion and Application of Multi-sensor Remotely Sensed Data
- Virtual Reality Technology and Three-dimensional GIS
- Precise Satellite Positioning

4. Application Requirements

(1) You have received the master degree from the domestic and overseas universities or academic institutions accredited by the Ministry of Education.

(2) You have the ability to read and write academic papers and communicate in

English.

5. Educational System and Duration

The doctorate program is 4 years, the duration is minimum 3 years and no more than 6 years.

6. Credits and Courses

In accordance with the code of graduate study in Hohai University, the doctorate program requires students to complete minimum 15 credits points of course study and participate in other academic activities for graduation, among which minimum 10 credits are Required course of the degree and minimum 5 credits are Non-required course of the degree. A research thesis is also Required course of the degree for obtaining the academic degree. A list of the courses for doctorate program in the discipline of Geodesy and Surveying Engineering is presented below.

大地测量学与测量工程博士留学研究生课程设置

Courses for DoctoralStudents of Geodesy and Surveying Engineering

课程类别 Categories		课程编号 No	课程名称 Course	学时 Hours	学分 Credits	开课学期 Term	备注 Note
学位课程 10 学分 Required course of the degree 10 Credits	公共课 General Courses	2015LXS01	*汉语 I Chinese Language I	32	2	秋 fall	必修 RequiredCourse
		2015LXS03	*中国概况 Introduction to China	32	2	秋 fall	
	专业基础课程 Major BasicCourses	2015JC03	数值分析 Numerical Analysis	48	3	秋 fall	选修 4 学分 4 Credits at least
		2015JC04	最优化方法 Optimization Methods	32	2	秋 fall	
		2015JC01	数学物理方程 Partial Differential Equations	32	2	春 Spring	
	专业课 Major Courses	2015DX01	现代大地测量学 Modern Geodesy	32	2	春 Spring	选修 2 学分 2 Credits at least
		2017DX04	全球导航卫星系统原理及应用 Global Navigation Satellite System Principle and Application	32	2	秋 fall	
		2015DX11	高级空间分析 Advanced Spatial Analysis	32	2	秋 fall	
非学位课程 5 学分 Non-required course of the degree 5 Credits		2015LXS05	*跨学科选修 Interdisciplinary Elective	32	2		必修 RequiredCourse
		2015LXS06	*综合素质课 Comprehensive Quality	16	1		
		2015DX04	大地测量学与测量工程学科前沿专题讲座 Special Topic on Geodesy and Surveying Engineering	32	2	春 Spring	选修 2 学分 2 Credits at least
		2015DX05	遥感地学分析 Remote Sensing Geo-Analysis	32	2	春 Spring	
		2015DX06	遥感科学与进展 Frontiers of Remote Sensing Science	32	2	春 Spring	
		2015DX02	最优估计理论在空间大地测量中应用 Application of Optimal Estimation Theory in Space Geodesy	32	2	春 Spring	
		2017DX02	数字高程模型 Digital Elevation Model	32	2	春 Spring	
教学环节 Academic Activities		*学术活动 Seminar and Conferences					必修 Required Course
		*科学研究 Scientific Research					
		*文献阅读与综述 Literature Reading and Reviewing					

地质资源与地质工程(0818)

学科门类：工学(08)一级学科：地质资源与地质工程(0818)

一、专业描述

河海大学地质资源与地质工程一级学科含地质工程、地球探测与信息技术、地下水科学与工程、地学信息工程四个二级学科。地质工程学科 1986 年获硕士学位授权点，2003 年获博士学位授权点，2006 年成为江苏省重点学科和特色专业；地球探测与信息技术 2003 年获硕士学位授权点，2011 年获博士学位授权点；地下水科学与工程 2012 年获硕士和博士学位授权点。2005 年地质资源与地质工程获一级学科硕士学位授权点，2014 年获批一级学科博士后流动站。

学科拥有地质工程安全监测系统、地质参数快速测试系统等先进设备，是培养水利水电地质工程高级人才的重要基地，全国综合排名处于前列。本学科现有教师 37 人，其中教授 15 名（其中博导 13 名），副教授 16 名，具有博士学位教师 31 名。毕业研究生主要从事水利水电、土木、交通、国土资源等领域的科学研究与管理工作。

二、培养目标

掌握地质资源与地质工程学科领域内坚实的理论基础和系统的专业知识、技能方法，对学科的现状和发展趋势有较为全面的了解，具有一定独立从事本学科科学研究和有效解决地质工程项目的勘察设计、工艺优化、施工项目管理与决策等实际问题的能力，能独立组织地质工程项目的施工或工程评价，面向地质矿产、水利水电、土木交

通、能源环境、海洋地质和地理信息等领域重大需求的德智体美全面发展的高层次学术型人才。

三、研究方向

1. 地质工程（Geological Engineering）

2. 地下水科学与工程（Underground Water Science and Engineering）

4. 地球探测与信息技术（Geological Prospecting and Information Technology）

四、申请条件

1. 已在我国认可的海内外高校或学术机构获得硕士学位者。

2. 能够用英语进行课程学习、阅读文献和进行学术写作，能够用英语进行日常交流。

五、培养年限

攻读博士学位的标准学制为 4 年，实行弹性学制，学习年限最短不低于 3 年，最长不超过 6 年。

六、学分要求和课程设置

本专业博士留学研究生课程总学分为 15 学分，其中学位课程为 11 学分，非学位课程为 4 学分。另设教学环节。具体开设课程见附表。

Geological Resource and Geological Engineering (0818)

Discipline: Engineering (08)

First- Class Discipline: Geological Resource and Geological Engineering

1. Discipline Description

The sub-discipline of Geological Resource and Geological Engineering (GRE) in Hohai University includes five directions, Geological Engineering (GE), Geophysical Prospecting (GP), Information Technology (IT), Groundwater Science and Engineering (GSE), and Geological Information Engineering (GIE). Under regulations of the Ministry of Education, P.R. China, The GE direction can award Master's and Doctor's degrees since 1986 and 2003 respectively. This direction has been designated as key discipline in Jiangsu Province since 2006. The entire sub-discipline of GRE can award Master's and Doctor's degrees since 2005 and 2011 respectively. From 2014, GRE can accept Post Doctor Fellows (PDF) to conduct research.

The engineering discipline in Hohai University has top rankings in China and it has cultivated many first-class talents. The GRE has 37 teachers, including 15 professors, 16 associate professors and 31 teachers with doctorates. The GRE is facilitated with safety monitoring systems, geologic and geophysical equipment and other state of the art amenities. The GRE graduates mainly engage in scientific research and management work in the fields of water conservancy, hydropower, civil engineering, transportation, and resources exploration, etc.

2. Program Description

A qualified Ph.D. student should have a firm grasp of basic theories and systematic knowledge in Geological Resources and Engineering. A qualified Ph.D. student must fully understand the current status and development trend in Geological Resources and Engineering discipline. Upon graduation, they can conduct scientific research independently in Geological Resources and Engineering and have the ability of solving practical problems, such as exploration program design, process

optimization, project management and sound decision making. We want our Ph.D. graduate to be the leaders in the field of geological engineering, mineral exploration, water conservancy, hydropower, civil transportation, energy exploration, environment, marine geology and geographic information, etc.

3. Research Directions

- Geological Engineering
- Grounder water Science and Engineering
- Geological Prospecting and Information Technology

4. Application Requirements

(1) You have received the master degree from the domestic and overseas universities or academic institutions accredited by the Ministry of Education.

(2) You have the ability to read and write academic papers and communicate in English.

5. Educational System and Duration

The doctorate program is 4 years, the duration is minimum 3 years and no more than 6 years.

6. Credits and Courses

A doctoralstudent must take at least 15 credits of courses, including 11 credits of Required course of the degree and 4 credits of Non-required course of the degree.

地质资源与地质工程全英文留学博士研究生课程设置

Courses for DoctoralStudents of Geological Resource and Geological Engineering

课程类别 Categories		课程编号 Course No	课程名称 Course Name	学时 Hours	学分 Credits	开课学期 Term	备注 Note
学位课程 11 学分 Required course of the degree 11 Credits	公共课程 General Courses	2015LXS01	*汉语 I Chinese Language I	32	2	秋 fall	必修 Required Course
		2015LXS03	*中国概况 Introduction to China	32	2	秋 fall	
	专业基础课程 Major Basic Courses	2015JC01	数学物理方程 Mathematical Physical Equation	32	2	春 spring	选修 4 学分 4 Credits at least
		2015JC02	应用数学 Applied Mathematics	32	4	春 spring	
		2015JC03	数值分析 Numerical Analysis	48	3	秋 fall	
		2015JC04	最优化方法 Optimization Methods	32	2	秋 fall	
	专业课程 Major Courses	2017DX13	地质资源与地质工程学科前沿专题讲座 Frontier Seminars on Geological Resources and Engineering	16	1	春 spring	选修 3 学分 3Credits at least
		2015DX20	应用地球物理 Applied Geophysics	32	2	春 spring	
		2015DX21	岩体地下水动力学 Rock Mass Groundwater Dynamics	32	2	春 spring	
		2015DX22	地质体稳定性理论与方法 Theory and Method of Geological Stability	32	2	春 spring	
非学位课程 4 学分 Non-required course of the degree 4 Credits		2015LXS05	*跨一级学科 A Course in Other Disciplines	32	2		必修 Required Course
		2015DX23	物探及测井新方法及新技术 Technology of Geophysical Exploration & well logging	32	2	春 spring	选修 2 学分 2Credits at least
		2015DX24	高等水文地球化学 AdvancedHydrogeochemistry	32	2	春 spring	
		2015DX25	地质灾害防治理论与方法 Theory and Method of Geological Disaster Prevention and Control	32	2	春 spring	
		2017DX14	环境地质工程 Geo-Environmental Engineering	32	2	春 spring	
教学环节 Academic Activities		*学术活动 Seminars and Conferences					必修 Required Course
		*科学研究 Scientific Research					
		*文献阅读与综述 Literature Reading and Review					

农业工程（0828）

学科门类：工学(08)　一级学科：农业工程（0828）

一、专业描述

河海大学农业工程学科始于 1952 年成立的水利与土壤改良专业，是建国后国内最早设立的培养农业工程专门人才的学科之一。1958 年更名为农田水利工程专业，1985 年获硕士学位授予权。2000 年、2003 年先后获得农业水土工程硕士、博士学位授予权，2003 年、2010 年获农业工程一级学科硕士、博士学位授予权。水文水资源与水利工程科学国家重点实验室、南方地区高效灌排与农业水土环境教育部重点实验室为本学科发展提供了良好的硬件条件。近五年来，先后承担国家自然科学基金、国家重点研发项目等国家、省部级重大重点科技项目及生产科研项目等 200 余项,研究生就业单位有科研院所、高等学校、政府机关、水利、农业、国土等部门管理机构、勘测设计部门等。本学科主要研究农业水土资源的合理开发、高效利用与保护，整体研究水平居国内一流水平，部分领域处于领先水平。

二、培养目标

本学科旨在培养具有创新思维和科学精神，掌握农业工程学科领域内基础理论、专门知识和技能方法，对全球农业工程科学的现状和发展趋势有较为全面的了解，具有独立从事本学科科学研究和有效解决所在国实际问题的能力的高层次学术型人才。

三、研究方向

1. 灌溉排水理论与技术（Irrigation and Drainage Engineering）

2. 农业水土环境与保护（Protection of Agricultural Soil and Water Environment）

3. 水土保持工程（Soil and Water Conservation）

4. 生物环境工程（Bio-Environmental Engineering）

5. 水土资源规划与管理（Planning and Utilization of Agricultural Soil and Water）

四、申请条件

1．已在我国认可的海内外高校或学术机构获得硕士学位者。

2．能够用英语进行课程学习、阅读文献和进行学术写作，能够用英语进行日常交流。

五、培养年限

攻读博士学位的标准学制为 4 年，实行弹性学制，学习年限最短不低于 3 年，最长不超过 6 年。

六、学分要求和课程设置

本专业博士留学研究生课程总学分为 15 学分，其中学位课程为 11 学分，非学位课程为 4 学分。另设教学环节。具体开设课程见附表。

Agricultural Engineering（0828）

Discipline: Engineering (08)

First- Class Discipline: Agricultural Engineering（0828）

1. Discipline Description

The discipline of Agricultural Engineering of Hohai University was founded in 1952 and originated from the department of Water Conservancy and Soil Improvement, which was one of earliest institutes for Agricultural Engineering Education in China after the founding of the People's Republic of China in 1949. The department of Water Conservancy and Soil Improvement was renamed as the Department of Irrigation and Drainage Engineering in 1958 and started the Master degree education in 1985. The discipline started the master education and the Ph.D. education for Agricultural Engineering in 2000 and 2003, respectively. The discipline could run the master's program and Ph.D. program in Level I discipline of Agricultural Engineering in 2003 and 2010, respectively. The State Key Laboratory of Hydrology-Water Resources and Hydraulic Engineering and the Key Laboratory of China South Region Efficient Irrigation & Drainage, Agricultural Soil & Water Environment, Ministry of Education play important roles in serving for the creative research program in the discipline. In the past five years, the discipline has undertaken research programs at national, international cooperation, provincial, and ministerial level more than 200 items and covering research funding, in which 2 programs received the prize of National Sci-tech Improvement and more than 10 programs received the prize of provincial and ministerial sci-tech improvement. Until now, more than one Hundred papers from the discipline have been published in top journals and embodied by SCI and EI and 25 inventions supported by the discipline have got the national invention patents. The postgraduates have the ability to work in governments, research institutes, universities, and agricultural water and land management agencies and other related departments. The research areas of this discipline include rational utilizing water and soil resources, high-efficient usage and protection of agricultural water and soil resources, etc. The overall study level of this

filed is among the first-class in domestic and some areas are in the leading position.

2. Program Description

The postgraduate students should have cooperative spirits in the team work and have the innovative spirit in researches. In addition to master the basic theory of agricultural engineering disciplines, the postgraduate after graduation should also have the ability to solve scientific problems and have comprehensive understanding of the discipline, as well as having the ability to do the scientific research independently and solve the practical problems efficiently. All in all, the aim of this discipline is to cultivating academic talents for the rational utilization of agricultural water and soil resources all over the world.

3. Research Directions

- Irrigation and Drainage Engineering
- Protection of Agricultural Soil and Water Environment
- Soil and Water Conservation
- Bio-Environmental Engineering
- Planning and Utilization of Agricultural Soil and Water

4. Application Requirements

(1) You have received the master degree from the domestic and overseas universities or academic institutions accredited by the Ministry of Education.

(2) You have the ability to read and write academic papers and communicate in English.

5. Educational System and Duration

The doctorate program is 4 years, the duration is minimum 3 years and no more than 6 years.

6. Credits and Courses

A doctoral student must take at least 15 credits of courses, including 11 credits of Required course of the degree and 4 credits of Non-required course of the degree.

农业工程全英文留学博士研究生课程设置

Courses for Doctoral Students of Agricultural Engineering

课程类别 Categories		课程编号 No	课程名称 Course	学时 Hours	学分 Credit	开课学期 Term	备注 Note
学位课程 11 学分 Required course of the degree 11 Credits	公共课程 General Courses	2015LXS01	*汉语Ⅰ Chinese Language Ⅰ	32	2	秋 fall	必修 Required Course
		2015LXS03	中国概况 Introduction to China	32	2	秋 fall	
	基础课程 Basic Courses	2015JC02	应用数学 Applied Mathematics	64	4	秋 fall	选修 4 学分 4 Credit at least
		2015JC01	数学物理方程 Partial Differential Equations	32	2	春 Spring	
	专业课程 Major Courses	2015SD18	农业工程学科前沿专题 Special Topics on Agricultural engineering	16	1	春 Spring	必修 Required Course
		2015SD19	现代灌排理论 Modern Theory of Irrigation and Drainage	32	2	春 Spring	选修 2 学分 2Credits at least
		2015SD20	现代农业水土环境 Modern Agricultural Soil and Water Environment	32	2	春 Spring	
非学位课程 4 学分 Non-required course of the degree 4 Credits		2015LXS07	英文科技写作 The Art of Scientific Presentation and Writing in English	32	2	秋、春 Fall or Spring	必修 Required Course
		2015LXS05	跨一级学科选修博士课程 A course in other disciplines	32	2		
教学环节 Academic Activities		学术活动 Seminar and Conferences					必修 Required Course
		科学研究 Scientific Research					
		文献阅读与综述 Literature Reading and Reviewing					

环境科学与工程（0830）

学科门类：工学（08）一级学科：环境科学与工程（0830）

一、专业描述

河海大学环境工程为国家重点（培育）学科和江苏省重点学科，环境科学与工程专业是以水资源保护与水环境修复等为鲜明特色的省级重点学科。现有中国工程院院士 1 名，教育部“长江学者”特聘教授 1 名、国家杰出青年科学基金获得者 1 名、国家“百千万工程”人选 2 名。现有教授 15 名，副教授（含副研究员）17 名。拥有博士生导师 11 名、硕士生导师 53 名，专任教师中具有博士学位比例 95%。

近五年来获国家及部省级科技进步奖 20 余项，出版专著及教材 20 余部，获国家专利 80 项，发表三大检索学术论文 300 余篇。该学科围绕国民经济建设和社会发展所遇到的水环境问题，紧密结合国家经济发展和学科发展方向，在水资源保护理论及技术，环境与生态水力学及应用，流域水污染控制和水环境质量改善，固体废弃物处置与资源化技术，污水处理及废水回用技术等方面开展了深入的研究，获得了大量的科技成果，取得了显著的社会、经济和环境效益。

二、培养目标

本学科专业培养环境科学与工程方面的高级专业技术人才，能够胜任高等教育、科学研究、科技开发、技术管理与工程应用等方面工作，培养具有坚实的数学、化学、生物、力学、计算机应用方面的基础理论知识；能掌握环境学科的发展趋势，针对我国环境领域存在的

主要问题开展研究，熟练阅读环境科学与工程相关外文资料，可用外语撰写科技论文和进行技术交流；培养严谨求实、勇于探索的科学态度和作风，能熟练应用现代基础理论和先进的计算、实验技术手段独立开展环境保护方面的科研工作，具有一定的创新实践能力。

三、研究方向

1. 水资源保护与生态修复 (Water Resource Protection and Bioremediation)
2. 环境水利与生态水力学 (Environmental Water Conservancy and Ecological Hydraulics)
3. 环境系统规划与综合评价(Environmental System Planning and Complex Assessment)
4. 水污染控制与水处理工程 (Water Pollution Control and Water Treatment Engineering)
5. 固体废弃物处置与资源化利用(Solid Waste Disposal and Resourced Utilization)

四、申请条件

环境科学与工程全英文专业博士生申请人需要满足以下条件:

1．已在我国认可的海内外高校或学术机构获得硕士学位者。

2．能够用英语进行课程学习、阅读文献和进行学术写作，能够用英语进行日常交流。

五、培养年限

攻读博士学位的标准学制为 4 年，实行弹性学制，学习年限最短

不低于 3 年，最长不超过 6 年。

六、学分要求和课程设置

本专业博士留学研究生课程总学分为 15 学分，其中学位课程为 11 学分，非学位课程为 4 学分。另设教学环节。具体开设课程见附表。

Environmental Science and Engineering（0830）

Discipline：Engineering（08）

First-Class Discipline：Environmental Science and Engineering（0830）

1. Discipline Description

Environmental Science and Engineering at Hohai University is the national key subject. The education and research here are mostly about the treatment of water and wastewater, the protection of water resources and water environment restoration. The scholarship troop consists of a member of Chinese Academy of Engineering, one special engaged professor of "Yangtze River Scholar", one person of the “National Outstanding Youth Fund”, 11 doctoral supervisors, 53 postgraduate supervisors, 15 professors and 17 associate professors (associate research fellow).

Over the past five years, this discipline of Environmental Science and Engineering has obtained more than 20 National and Provincial Science and Technology Progress Awards, published more than 20 monographs and teaching materials, acquired 80 national patents and published over 300 academic papers. The Environmental Science and Engineering at Hohai University has obtained a large number of achievements and made significant social and environmental contributions in the field of water resource protection and water environment remediation.

2. Program Description

The program in the Environmental Science and Engineering aims at cultivating high-level individuals with solid fundamental knowledge in the theory of mathematics, chemistry, biology, mechanics and computer application. After graduation, the students are capable of handling complex technical problems in environmental protection, undertaking research and development project in engineering companies or teaching and research work in academic institutions.

The program is designed to provide students with an intellectual environment to explore the knowledge and principles in Environmental Science and Engineering through research project under guidance of an established professor (PhD supervisor).

Through the program, students have opportunities to develop their problem-solving ability with new knowledge and skills, and to make their own contributions to their research field.

3. Research Directions

- Water Resource Protection and Bioremediation
- Environmental Water Conservancy and Ecological Hydraulics
- Environmental System Planning and Complex Assessment
- Water Pollution Control and Water Treatment Engineering
- Solid Waste Disposal and Resourced Utilization

4. Application Requirements

(1) You have received the master degree from the domestic and overseas universities or academic institutions accredited by the Ministry of Education.

(2) You have the ability to read and write academic papers and communicate in English.

5. Educational System and Duration

The doctorate program is 4 years, the duration is minimum 3 years and no more than 6 years.

6. Credits and Courses

A doctoralstudent must take at least 15 credits of courses, including 11 credits of Required course of the degree and 4 credits of Non-required course of the degree.Module structure of the doctorate program of Environmental Science and Engineering is listed below.

环境科学与工程全英文留学博士研究生课程设置

Courses for Doctoral students of Environmental Science and Engineering

课程类别 Categories		课程编号 No	课程名称 Course	学时 hours	学分 credit	开课学期 Term	备注 Note
学位课程 11 学分 Required course of the degree 11 Credits	公共课程 General Courses	2015LXS01	汉语 I Chinese Language	32	2	秋 fall	必修 RequiredCourse
		2015LXS03	中国概况 Introduction to China	32	2	秋 fall	
	基础课程 BasicCourses	2015JC02	应用数学 Applied Mathematics	32	4	秋 fall	选修 2 学分 2Credits at least
		2015JC05	偏微分方程近代方法 Modern Methods in Partial Differential Equations	32	2	秋 fall	
	专业课程 MajorCourses	2015HJ07	环境科学与工程前沿专题讲座 Special Topic on Environmental Science and Technology	16	1	春 spring	必修 RequiredCourse
		2015HJ06	生态修复理论与技术 Bioremediation Theory and Technology	32	2	秋 fall	选修 4 学分 4Credits at least
		2015HJ04	水污染控制工程 Water Pollution Control Engineering	32	2	秋 fall	
非学位课程 4 学分 Non-required course of the degree 4 Credits		2015LXS07	英文科技写作 The Art of Scientific Presentation and Writing in English	36	2	春 spring	必修 RequiredCourse
		2015LXS05	跨一级学科选修博士课程 A course in other disciplines	36	2		
教学环节 Academic Activities		学术活动 Seminar and Conferences					必修 RequiredCourse
		科学研究 Scientific Research					
		文献阅读与综述 Literature Reading and Reviewing					

移民科学与管理（1201Z5）

学科门类：管理学（12）一级学科：管理科学与工程（1201）

一、专业描述

河海大学作为移民学科和人才培养的创立和开拓者，1992 年开始在国际上首创移民科学博士、硕士研究方向（在技术经济与管理二级学科内设立），培养移民科学与管理方向博士研究生及硕士研究生。2004 年获得移民科学与管理二级学科博士及硕士学位授予权，移民科学研究特色鲜明，已经形成了移民科学基本理论与方法、工程移民管理、生态环境与扶贫移民管理、工程移民规划等比较成熟的研究方向。设立在河海大学的（水利部）移民研究中心是世界上至今唯一的全国性移民研究机构。

过去 10 年中，本学科主持国家社会科学基金、国家自然科学基金、教育部人文社科基金、江苏省社会科学基金、国家博士后基金等省部级基金课题 30 余项，主持世行、亚行、水利部、农业部、住建部等课题百余项，科研经费充裕。本学科在国内外有较高学术声誉。

二、培养目标

本专业旨在培养具有坚实宽广的管理学及经济学理论基础，熟练运用管理学及经济学的理论与方法，能独立从事移民科学与管理研究工作的能力，能够胜任国际机构、政府部门、咨询机构、大中型企业、社会组织从事各类复杂移民活动的政策分析、规划设计、实施及管理，以及大学及研究机构从事科学研究、教学工作的高层次人才。

三、研究方向

1. 移民科学基本理论与方法

2. 工程移民管理

3. 生态环境与扶贫移民管理

4. 灾害性移民管理

四、申请条件

1．已在我国认可的海内外高校或学术机构获得硕士学位者。

2．能够用英语进行课程学习、阅读文献和进行学术写作，能够用英语进行日常交流。

五、培养年限

攻读博士学位的标准学制为 4 年，实行弹性学制，学习年限最短不低于 3 年，最长不超过 6 年。

六、学分要求和课程设置

本专业博士留学研究生课程总学分为 15 学分，其中学位课程为 11 学分，非学位课程为 4 学分。另设教学环节。具体开设课程见附表。

Resettlement Science and Management (1201Z5)

Discipline: Management（12）

First-Class Discipline：Resettlement Science and Management（1201）

1．Discipline Description

Hohai University, which is the founder and pioneer of discipline and personnel training of resettlement science, initiated resettlement research direction in 1992 under secondary discipline of technical economics and management in the world to train the doctor and master in resettlement science and management. Hohai University gained the entitlement in granting doctor's and master's degree in secondary discipline of resettlement science and management in 2004. The researches in resettlement science and management have formulated the salient features in basic theories and methods of resettlement science, engineering resettlement management, resettlement management for ecological environment and anti-poverty and resettlement planning due to the project, etc. Approved by the Ministry of Water Resources and based in Hohai University, the national research center for resettlement (NRCR) is the first national and unique research institute specialized in resettlement science.

In the past 10 years, the discipline has undertaken about 30 research programs supported by the National Social Science Foundation, the National Natural Science Foundation, the humanities and Social Science Foundation of the Ministry of Education, Jiangsu Provincial Social Science Foundation and Postdoctoral Science Foundation of China, and hundred programs funded by the World Bank, Asian Development Band, Ministry of Water Resource, Ministry of Agriculture and Ministry of Housing and urban-rural development, etc., resulting in adequate research funds. The discipline enjoys great popularity both at home and abroad.

2．Program Description

The discipline is to train advanced resettlement personnel with the solid and fundamental knowledge in theories and methods of management sciences and

economics, who is capable of undertaking the research of resettlement science and management independently, working on policy analysis, planning and designing, implementation and management of all kinds of complicated resettlement activities for international institutes, government departments, consulting agencies, large and medium-size enterprises and social organizations, and undertaking the teaching and research work in academic institutions as well.

3．Research Directions

- Basic theories and methods of resettlement science
- Engineering resettlement management
- Resettlement management for ecological environment and anti-poverty
- Resettlement Management for Disasters

4．Application Requirements

(1) You have received the master degree from the domestic and overseas universities or academic institutions accredited by the Ministry of Education.

(2) You have the ability to read and write academic papers and communicate in English.

5．Educational System and Duration

The doctorate program is 4 years, the duration is minimum 3 years and no more than 6 years.

6. Credits and Courses

A doctoral student must take at least 15 credits of courses, including 11 credits of Required course of the degree and 4 credits of Non-required course of the degree.

移民科学与管理全英文留学博士研究生课程设置

Courses for Doctoral Students of Resettlement Science and Management

课程类别 Categories		课程编号 No	课程名称 Course	学时 Hour	学分 Credit	开课学期 Term	备注 Note
学位课程 11 学分 Required course of the degree 11 Credits	公共课程 General Courses	2015LXS01	*汉语 Chinese Language I	32	2	秋 fall	必修 Required Course
		2015LXS03	*中国概况 Introduction to China	32	2	秋 fall	
	基础课程 Basic Courses	2015JC22	高级管理学 Advanced Management	32	2	秋 fall	必修 Required Course
		2015JC23	高级经济学 Advanced Economics	32	2	秋 fall	
	专业课程 Major Courses	2015JC24	学科前沿专题 Modern Science of the Discipline	16	1	春 Spring	必修 Required Course
		2015GG15	移民政策与实践 Resettlement Policy and Implementation	32	2	春 Spring	
非学位课程 4 学分 Non-required course of the degree 4 Credits		2015LXS05	*跨一级学科选修 A course in other Disciplines	32	2		选修 4 学分 4 Credits at least
		2015GG19	移民经济学 Resettlement Economics	16	1	秋 fall	
		2015GG20	移民系统工程 Resettlement System Engineering	16	1	秋 fall	
		2015GG13	移民管理学 Resettlement Management	16	1	秋 fall	
教学环节 Academic Activities		学术活动 Seminar and Conferences					必修 Required Course
		科学研究 Scientific Research					
		文献阅读与综述 Literature Reading and Reviewing					

工商管理（1202）

学科门类：管理学（12）　　一级学科：工商管理（1202）

一、　专业描述

工商管理是研究工商企业经济管理基本理论和一般方法的学科，主要包括企业的经营战略制定和内部行为管理两方面。工商管理专业的应用性很强，它的目标是依据管理学、经济学的基本理论，通过运用现代管理的方法和手段来进行有效的企业管理和经营决策，保证企业的生存和发展。

河海大学工商管理学科起源于1952年华东水利学院时期的水利水电管理、水能规划与动能经济专业方向，于2011年获批江苏省重点一级学科。目前，该学科设有工商管理博士后流动站，具有一级学科博士及硕士学位授权；其二级学科技术经济及管理为水利部重点学科和国家重点（培育）学科，以及江苏省重点序列学科。同时，该学科还获得MBA专业学位硕士授权、以及MPAcc、资产评估、国际商务专业学位硕士授权。此外，水管理方向还是“水文水资源与水利工程科学”国家重点实验室和“水资源高效利用与工程安全”国家工程研究中心的主要研究方向之一。学科现有教育部创新团队1支、教育部新世纪优秀人才支持计划入选者1人、国务院特殊津贴专家3人、江苏省“333工程”5人和“青蓝工程”2人，IFSAM、IFEAMA、中国管理现代化研究会等国际国内学术组织理事多人。2012年在教育部学科评估中，河海大学工商管理学科位列第29名。

二、 培养目标

本专业培养具有扎实的经济与管理理论基础，系统精深的工商管理专业知识、良好的科技与文化素养和创新精神，具备独立开展科学研究和解决实际问题能力的高级人才。通过本学科的学习，博士生应熟悉本学科国内外发展的现状、趋势和研究前沿，可以创造性的开展本学科的科学问题研究，提出科学观点和理论，或者科学利用最新研究成果创造性的解决重要实际管理问题。毕业后可胜任高校和科研机构的科研与教学工作，或企业、政府的高层次管理工作。

三、 研究方向

1.战略与技术管理 (Strategy and Technology Management)

2. 水利水电与资源技术经济 (Water conservancy and Hydropower and Technical Economy of Resources)

3.企业经营与市场营销 (Business Operation and marketing)

4.技术创新与知识管理 (Technical Innovation and Knowledge Management)

5.人力资源与组织管理 (Human Resource and Organizational Management)

6.服务外包与跨国经营 (Service outsourcing and transnational operations)

7.会计与财务管理 (Accounting and Financial Management)

8.游艇管理 (Yacht management)

四、 申请条件

工商管理专业博士生申请人需要满足以下条件:

1. 已在我国认可的海内外高校或学术机构获得硕士学位者。

2. 能够用英语阅读文献和进行学术写作，能够用英语进行日常交流。

五、 培养年限

攻读博士学位的标准学制为 4 年，实行弹性学制，学习年限最短不低于 3 年，最长不超过 6 年。

六、学分要求和课程设置

本专业博士留学研究生课程总学分为 15 学分，其中学位课程为 11 学分，非学位课程为 4 学分。另设教学环节。具体开设课程见附表。

对缺少本学科前期专业基础的研究生，在完成本学科规定学分的同时，导师应根据具体情况指定研究生补修前期的专业课程。

Business Administration (1202)

Discipline: Management (12)

First-Class Discipline: Business Management (1202)

1. Discipline Description

The business administration is a discipline studying the basic theories and general methods of economic management of enterprises, mainly consisting of two fields: operating strategy and interior behavior management. With a strong adaptability, it aims to carry out efficient business management and operation decision-making through the use of modern management methods and based on the theories about management and economics, thus ensuring the survival and development of enterprises.

It is originated from the discipline of water conservancy and hydropower management, hydro-energy planning and kinetic energy economy which could be dated back to the East China Institute of Water Conservancy in 1952. It was authorized the key discipline of Jiangsu Province in 2011. Currently, it possesses a post-doctoral mobile research center and has the authority to grant first-class discipline doctor and master's degree, and the Technical Economy and Management, one of its second-class disciplines, is listed as one of the key disciplines by the Ministry of Water Resources, one of the key (cultivating) disciplines by the state and the key sequence discipline of Jiangsu Province. It also has the authority to grant the degree of MBA, MPAcc, Assets Evaluation and International Business. In addition, Water Management is one of the major research fields of both the State Key Laboratory of Hydrology-Water Resources and Hydraulic Engineering and the National Engineering Research Center of Water Resources Efficient Utilization And Engineering Safety. It currently possesses 1 MOE (Ministry of Education) Innovation Team, 1 NCET (Supported by Program for New Century Excellent Talents in University) winner, 3 Experts enjoying the Special Allowance granted by State Council, 5 Technological leading talents of Jiangsu Province "333" Project, 2 Experts

of " Qing Lan " Project and several members of such domestic and international academic organizations as IFSAM, IFEAMA, CSMM (Chinese Society For Management Modernization).In 2012, the Business Administration discipline in Hohai University ranked 29 in the Discipline Assessment conducted by the Ministry of Education of PRC.

2. Program Description

It aims at cultivating the students to be equipped with solid economic and management theoretical foundation, systematic and fine knowledge about business administration and good technological and cultural background as well as innovation spirit, and to enable the students to carry out scientific researches dependently and solve actual problems. Through the study of this discipline, the doctoral students are supposed to be familiar with the current situation of this discipline in China and foreign countries, and to be able to scientifically use the latest fruits of research to creatively solve important actual management problems. After graduation, they shall be qualified for the scientific and teaching works in universities and research institutions, or high-level management works in enterprises or government.

3. Research Directions

- Strategy Management and Collaborative Innovation
- Human Resource and Organizational change
- Marketing Behavior and Electronic Commerce
- Resources Accounting and Investment Management
- Technology Economy and Management of Water Resources
- Cooperation Governance of International River

4. Application Requirements

(1) You have received the master degree from the domestic and overseas universities or academic institutions accredited by the Ministry of Education.

(2) Youhave the ability to read and write academic papers and communicate in

English.

5．Educational System and Duration

The doctorate program is 4 years, the duration is minimum 3 years and no more than 6 years.

6. Credits and Courses

A doctoral student must take at least 15 credits of courses, including 11 credits of Required course of the degree and 4 credits of Non-required course of the degree. Academic Activities will be set up in addition. The specific courses are given as follows.

The study of all courses should be finished within one year after enrolling. Specially, there are 2 years for the bachelor-straight-to-doctorate students to finish all courses.

For the students who are lack of the preliminary professional basis of the discipline, it requires them not only to accumulate the regular credits of the discipline, but also make up 2 or 3 preliminary professional courses assigned by the supervisor based on the specific situations.

工商管理全英文留学博士研究生课程设置

Courses for Doctoral Students of Business Administration

课程类别 Categories		课程编号 No	课程名称 Course	学时 Credit	学分 Credit	开课学期 Term	备注 Note
学位课程 11 学分 Required course of the degree 11 Credits	公共课程 General Courses	2015LXS01	*汉语 Chinese	32	2	秋 fall	必修 Required Course
		2015LXS03	*中国概况 Introduction to China	32	2	秋 fall	
	基础课程 Basic CourseS	2017SX33	管理研究方法 Research Methods of Management	32	2	春 Spring	选修 4 学分 4 Credits at least
		2017SX34	决策科学理论与方法 Theory and Method of Decision Making	32	2	秋 fall	
		2017SX35	运筹与最优化 Operations Research and Optimization Methods	32	2	秋 fall	
	专业课程 Major CourseS	2017SX36	工商管理学科前沿专题讲座 Academic Frontier Seminar of Business Management Discipline	16	1	春 spring	选修 2 学分 2Credits at least
		2017SX37	战略、技术与管理 Strategy, Technology and Management	32	2	秋 fall	
		2017SX38	水利水电与资源技术经济及管理 Technology Economics and Management in Water, Hydropower and Resources	32	2	春 spring	
		2017SX39	技术创新与知识管理 Technology Innovation and Knowledge Management	32	2	春 spring	
		2017SX40	人力资源与组织管理 Human Research and Organization Management	32	2	秋 fall	
		2017SX41	企业经营与市场营销 Business Management and Marketing	32	2	秋 fall	
		2017SX42	高级会计理论与方法 Theory and Methods of Advanced Accounting	32	2	秋 fall	
		2017SX64	财务管理理论 Theory of Financial Management	32	2	秋 fall	
		2017SX44	服务外包与跨国经营 Service Outsourcing and Transnational Management	32	2	春 spring	
		2017SX45	游艇管理 Yacht Management	32	2	秋 fall	
非学位课程 4 学分 Non-required course of the degree 4 Credits		2015LXS04	*第二外国语（除母语与汉语外） Second language (except for the native language and Chinese)	32	2	春 Spring	必修 Required Course
		2017SX46	竞争情报 Competitive Intelligence	32	2	秋 fall	选修 4 学分 4 Credits at least
		2017SX47	现代经济学 Modern Economics	32	2	春 spring	
		2017SX48	营销行为 Marketing Behavior	32	2	秋 fall	
		2015LXS05	*跨学科选修 Interdisciplinary Elective Courses	32	2		
教学环节 Academic Activities		学术活动（含博导讲座） Seminar and Conferences（contain the lecture of doctoral advisors）					必修 Required Course
		科学研究 Scientific Research					
		文献阅读与综述 Literature Reading and Reviewing					

全英文留学学术型硕士研究生培养方案

马克思主义理论（0305）

学科门类：法学（03）　　一级学科：马克思主义理论（0105）

一、专业描述

马克思主义是科学的世界观和方法论，是反映客观世界特别是人类社会本质和发展规律的科学，是关于无产阶级和人类解放的学说。对马克思主义既应该从哲学、政治经济学、科学社会主义等方面进行分门别类的研究，更应该进行整体性研究，以利于完整地把握它的科学思想体系。“马克思主义理论”学科，就是对马克思主义进行整体性研究的一级学科。

马克思主义理论学科注重马克思主义理论的整体性，旨在研究马克思主义基本理论及其教育教学的实践和规律，其根本研究方法是辩证唯物主义和历史唯物主义，在研究中强调理论与实践、逻辑与历史、继承与创新、科学性与意识形态性的辩证统一，坚持马克思主义优良学风、科学精神和科学方法，不断增强马克思主义学术创造力，形成体现马克思主义立场、观点、方法的话语体系，促进马克思主义的当代发展，努力提升马克思主义理论学科的国际影响力。

河海大学是在全国较早传播马克思主义思想的高校之一，其历史可追溯至成立于 1915 年的“河海工程专门学校”时期。学院现拥有法学、哲学两大学科门类，融合马克思主义理论、哲学两个一级学科和部分政治学二级学科为一体，设有博士后流动站。学院现有教职员工 44 人，其中教授 17 人，副教授 10 人。2010 至 2013 年期间，马克思主义学院承担国家社科基金和教育部

人文社会科学基金课题 16 项，课题经费达 300 余万元。出版学术专著与各类教材 12 部；发表学术论文 558 篇。

二、培养目标

马克思主义理论硕士生培养目标为，具有坚定的马克思主义信仰和社会主义信念的高级人才。要求毕业生熟悉马列主义经典著作和中国化马克思主义重要文献，有较好的马克思主义理论素养和专业基础知识，能够运用马克思主义立场、观点、方法分析说明重大问题。成为从事与本学科相关的理论研究、教育教学、宣传和实际工作的专门人才。

培养方案的设计要为学生提供良好的学术环境,学生将在资深教授或副教授（硕导）的指导下，通过结合研究课题，寻求理论与实践的结合。鼓励学生应用获得的知识和理论发展分析现实问题的能力。

三、研究方向

马克思主义理论专业全英文硕士生培养计划包括（但不限于）以下研究方向:

1. 马克思主义传播史
2. 国外马克思主义
3. 马克思主义中国化

四、申请条件

马克思主义理论全英文专业硕士生申请人需要满足以下条件：

1、已在我国认可的海内外高校或学术机构获得本科学位者。

2、能够用英语进行课程学习、阅读文献和进行学术写作，能够用英语进行日常交流。

五、培养年限

学术型硕士学制为 3 年，实行弹性学制，学习年限最短不低于 2 年，最长不超过 5 年。

六、学分要求和课程设置

本专业硕士留学研究生课程总学分为28学分，其中学位课程为18学分，非学位课程为 10 学分。另设教学环节。硕士生还必须结合研究课题完成一篇硕士论文，并通过答辩。马克思主义理论专业硕士课程设置如下表。

Theory of Marxism (0305)

Discipline: Law (03)

First-ClassDiscipline: Theory of Marxism (0305)

1. DisciplineDescription

Marxism is the scientific world outlook and methodology. It is the scientific reflection of the objective world, the nature and development rule of human society in particular, and also the theory of emancipation of the proletariat and human. The study of Marxism is not only the separate research of philosophy, political economy, scientific socialism, etc., but also an integral study, so as to completely comprehend its scientific ideology. “Theory of Marxism” is the first-grade discipline that studies Marxism integrally.

Theory of Marxism focuses on the integrity and studies basic theories of Marxism as well as its teaching practices and principles. The fundamental method is dialectical materialism and historical materialism, underlining the dialectical unity of theory and practice, logic and history, inheritance and innovation, scientific and ideology, persisting in the fine style of study and scientific spirit and method of Marxism, increasingly strengthening the academic creativity of Marxism, so as to form the discourse system that embodies Marxist standpoint and method as well as advance the contemporary development of Marxism, trying to promote the international influence of this discipline.

Hohai University is one of the universities that spread the thought of Marxism from early times in China, the history of which can date back to the period of “Hohai engineering school” established in 1915. At present, the school includes two discipline types—Law and Philosophy, two first-grade disciplines—Theory of Marxism and Philosophy, and some part of second-grade discipline of politics, establishing the post-doctoral research station as well. The school has approaching 44 academic and administrative staff, with 17 professors and 10 associate professors. During the period of 2005 and 2010, the school of Marxism has undertaken nearly one hundred research projects and research funds amount to more than 3 millions. 18 academic monographs and textbooks as well as 558 academic theses have been published.

2. Program Description

The training destination of this master program is professionals with firm Marxism and socialist belief. It is required that the master graduates will be familiar with the classical works of Marxism Leninism and important documents of Sinicized Marxism, be equipped with profound theory and professional knowledge of Marxism, and study and analyze social reality with Marxist standpoint and method.

The design of the program will provide students with favorable academic environment. Under the guidance of senior professors (supervisors for doctor degree), students will find the combination of theory and practice through research subjects. Students are encouraged to analyze social reality with the knowledge and theories acquired and become senior professionals qualified in theoretical research, teaching and propaganda related to the discipline.

3. Research Directions

The master program of Theory of Marxism (taught in English) includes (not limited to) following research directions:

- Development History of Marxism
- Marxism in foreign countries
- Sinicization of Marxism

4. Application Requirements

(1) You have received the bachelor degree from the domestic and overseas universities or academic institutions accredited by the Ministry of Education.

(2) Youhave the ability to read and write academic papers and communicate in English.

5. Educational System and Duration

The master program is 3 years; the duration is minimum 2 years and no more than 5 years.

6. Credits and Courses

A master student must take at least 28 credits of courses, including 18 credits of required course of the degree and 10 credits of Non-required course of the degree. A dissertation of the research subject and an oral defense are also required. Module structure of the doctorate program of Theory of Marxism is listed below.

马克思主义理论全英文留学硕士研究生课程设置

Courses for MasterStudents of Theory of Marxism

课程类别 Categories		课程编号 No	课程名称 Course	学时 Hours	学分 Credit	开课学期 Term	备注 Note
学位课程 19 学分 Required course of thedegree 19Credits	公共课程 General Courses	2015LXS01	汉语Ⅰ Chinese Language Ⅰ	32	2	秋 fall	必修 RequiredCourse
		2015LXS02	汉语Ⅱ Chinese Language Ⅱ	32	2	春 spring	
		2015LXS03	中国概况 Introduction to China	32	2	秋 fall	
	学科基础课程 Discipline BasicCourses	2015MY01	马列经典著作选读 Classic Texts in Marxism	48	3	春 spring	必修 RequiredCourse
		2015JC21	西方哲学史 History of Western Philosophy	32	2	春 spring	
		2015JC15	社会研究方法 Methodology of Social Science	32	2	春 spring	
	专业基础课程 Major BasicCourses	2015MY06	马克思主义哲学史 History of Marxism	32	2	春 spring	选修 4 学分 4 Credits at least
		2015MY07	批判理论史 History of Critical Theory	32	2	春 spring	
	专业课程 Major Courses	2015MY08	马克思主义中国化 Marxism in China	32	2	春 spring	选修 2 学分 2Credits at least
非学位课程 9 学分 Non-required course of the degree 9 Credits		2015LXS05	跨学科课程 A course in other disciplines	32	2		必修 RequiredCourse
		2015LXS06	*综合素质课 Comprehensive Quality	18	1		
		2015LXS07	英文科技写作 The Art of Scientific Presentation and Writing in English	32	2	秋，春 fall，spring	选修 6 学分 6 Credits at least
		2015MY09	文献综述 Review of Literature	32	2	春 spring	
		2015MY10	文化研究 Culture Studies	32	2	春 spring	
教学环节 Academic Activities		学术活动 Seminar and Conferences					必修 Required Course
		科学研究 Scientific Research					
		文献阅读与综述 Literature Reading and Reviewing					

国际贸易学（020206）

学科门类：经济学（02）一级学科：应用经济学（0202）

一、专业描述

河海大学国际经济与贸易专业的发展始于1988年管理工程系开设的涉外经济方向，1995年开始招收国际经济与贸易专业的本科生，2002年获得国际贸易硕士学位授予权。国际贸易专业是应用经济学下属的二级学科，以国际经济与贸易和企业跨国经营为研究对象、将经济学、国际贸易、国际经济技术合作、国际经济法等相结合，是研究经济全球化背景下的货物贸易、企业跨国经营协调发展的一门学科。目前有15名老师带国际贸易方向的研究生，其中正教授5名，副教授10名。

近年来，国际贸易学科紧密结合国家外贸政策和发展战略，依托河海大学水利特色平台，先后承担了国家社科基金、国家自然科学基金、教育部人文社科基金、江苏省社科基金等多项研究项目，获省部级以上科研奖20多项，出版专著及教材10余部，发表论文300多篇，极大地推动了国际贸易学科的发展。

二、培养目标

培养能胜任在涉外企事业单位、政府部门和社会组织从事国际商务经营运作与管理工作的高层次、应用型、复合型、具有全球视野的国际贸易专门人才。通过掌握相关国际贸易活动的知识、理论与实务技能，培养的毕业生具有对复杂变化的国际商务环境的学习能力、分析技能和战略意识，有适应

全球复杂经济、政治、社会、文化与语言、政策与法规环境的能力，能进行跨文化沟通，有较强的国际商务分析与决策能力，具有组织协调国际商务工作的领导潜质。

三、研究方向

1、国际贸易理论与政策

2、国际贸易实务

3、企业跨国经营

4、国际投资

四、申请条件

国际贸易学专业学术型硕士研究生申请人需要满足如下条件：

1、已在我国认可的海内外高校或学术机构获得相关学科学士学位，或具有认可的同等学历者。

2、能够用英语进行课程学习、阅读文献和进行学术写作，能够用英语进行日常交流。

五、培养年限

学术型硕士学制为 3 年，实行弹性学制，学习年限最短不低于 2 年，最长不超过 5 年。

六、学分要求和课程设置

本专业硕士研究生课程总学分为 29 学分，其中学位课程为 18 学分，非学位课程为 11 学分。另设教学环节。具体开设课程见附表。

International Trade（020206）

Discipline:Economics(02)

First-Class Discipline: Applied Economics (0202)

1. Discipline Description

The development of international trade in Hohai University began with the foreign economic orientation set up by the management engineering department in 1988. We began to enroll undergraduates in international trade from 1995 and obtained the right to confer the master of international trade. The International Trade is a second-class discipline under Applied Economics. Taking international economy and trade as well as enterprises' transnational operation as its research objects, and combining economics, international trade, international economic and technological cooperation with international economical law, it studies goods trade and enterprise transnational operation coordinated development against the background of economic globalization, and is very useful for us to solve the actual problems in international trade, to improve enterprise competiveness, and to study and make enterprise developing strategy with transnational operation theories. There are currently 15 mentors who are responsible for guiding graduate students, including 5 professors and 10 associate professors.

In recent years, the international trade discipline has assumed a number of research projects that include National Social Science Fund, the National Natural Science Foundation, Ministry of education humanities and social science found and Jiangsu Province social science fund, won more than 20 awards at the provincial level or above and published more than 10 monographs ,textbooks and more than 300 papers which closely combined with the national foreign trade policy and development strategy and relied on the characteristic water conservancy platform in Hohai University, which greatly promoted the development of international trade discipline.

2. Program Description

It aims to cultivate high-level, practical and versatile international trade talents with global view who are competent to engage in international business operation and management in

enterprises and institutions concerning foreign affairs, government departments and social organizations. Through the study of the knowledge, theories, and practical skills about international trade activities, the graduates are expected to have the ability to understand and analyze the complex and ever changing international business environment, and to have the capability to adapt to complex global economic, political, social, cultural and language, policies and law environment. They are also supposed to be able to conduct transcultural communication, with strong international business analyzing and decision making ability as well as the leadership potential in organizing and coordinating international business.

3. Research Directions

- International Trade Theories and Policies
- International Trade Practices
- Enterprise Transnational Operation and Strategy
- International Investments

4. Application Requirements

(1) You have received the bachelor degree from the domestic and overseas universities or academic institutions accredited by the Ministry of Education.

(2) You have the ability to read and write academic papers and communicate in English.

5. Educational System and Duration

The master program is 3 years; the duration is minimum 2 years and no more than 5 years.

6. Credits and Courses

The totalcredits for Master students of international trade are 29, among which 18 credits are for degree courses and 11credits are for non-degree courses. Other specific teaching links can be seen in the attached list.

国际贸易学全英文留学硕士研究生课程设置

Courses forMaster Students of International Trade

课程类别 Categories		课程编号 No	课程名称 Course	学时 Hours	学分 Credit	开课学期 Term	备注 Note
学位课程 18 学分 Required course of the degree 18Credits	公共课程 General Courses	2015LXS01	*汉语Ⅰ Chinese Language Ⅰ	32	2	秋 fall	必修 Required Course
		2015LXS02	汉语Ⅱ Chinese Language Ⅱ	32	2	春 spring	
		2015LXS03	*中国概况 Introduction to China	32	2	秋 fall	
	学科基础课程 Discipline Basic Courses	2015JC23	高级经济学. Advanced Economics	32	2	秋 fall	选修 4 学分 4Credits at least
		2015JC22	高级管理学 Advanced Management	32	2	秋 fall	
		2017SX01	现代决策方法 Modern Decision Method	32	2	秋 fall	
	专业基础课程 Major Basic Courses	2015SX10	国际商务 International Business	32	2	秋 fall	选修 4 学分 4Credits at least
		2015SX11	国际金融 International Finance	32	2	春 spring	
		2017SX02	国际经济学 International Economics	32	2	春 spring	
	专业课程 Major Courses	2017SX03	国际贸易学 International Trade	32	2	秋 fall	选修 4 学分 4Credits at least
		2017SX04	国际贸易实务 International Trade Practice	32	2	春 spring	
		2017SX05	金融经济学 Financial Economics	32	2	春 spring	
		2017SX06	证券投资分析 Securities Investment Analys	32	2	春 spring	
非学位课程 11 学分 Non-required course of the degree 11 Credits		2015LXS06	*综合素质课 Comprehensive Quality	16	1		必修 Required Course
		2015LXS05	*跨学科选修 Interdisciplinary Elective Courses	32	2		
		2015SX02	市场营销 Marketing	32	2	春 spring	选修 8 学分 8 Credits at least
		2015SX13	国际商务谈判 International Business Negotiation	32	2	春 spring	
		2015SX14	国际商法 International Commercial Law	32	2	秋 fall	
		2017SX09	国际投资学 International Investment	32	2	春 spring	
		2017SX10	高级发展经济学 Advanced Development Economics	32	2	秋 fall	
教学环节 Academic Activities		学术活动 Seminar and Conferences					必修 Required Course
		实践活动 Practical Activity					
		文献阅读与综述 Literature Reading and Reviewing					

社会学（030301）

学科门类：法学（03）　　一级学科：社会学（0303）

一、专业描述

河海大学 2003 年获得社会学二级学科硕士授予权，2005 年获得社会学二级学科博士学位授予权和社会学一级学科硕士学位授予权，2012 年获批设立博士后科研流动站，目前是全国 21 家具有博士学位授予权的单位之一。河海社会学特色鲜明，研究方向包括移民社会学、城乡社会学、环境社会学、社会评估、人口学、文化人类学、社会政策与社会治理、社会工作等方向。过去 5 年，本学科主持国家社会科学基金、国家自然科学基金、教育部人文社科基金、江苏省社会科学基金、国家博士后基金等国家与省部级基金课题 40 余项，主持世行、亚行、水利部、农业部、住建部等课题 200 余项，科研经费充裕。本学科有较高学术声誉。

二、培养目标

本专业旨在培养具有优良的品质和严谨的学风，掌握社会学理论与方法，具有较强的教学、科研、组织、管理等实际工作的能力，并能熟练掌握和运用一门外国语的应用社会学高级人才。

三、研究方向

1、移民社会学（Migration and Resettlement Sociology）

2、城乡社会学（Rural and Urban Sociology）

3、环境社会学(Environmental Sociology)

4、社会评估(Social Assessment)

5、人口学(Demography)

6、文化人类学(Cultural Anthropology)

7、社会政策与社会治理(Social Policy and Social Governance)

8、社会工作(Social Works)

四、申请条件

社会学专业硕士生申请人需要满足以下条件:

1. 已在我国认可的海内外高校或学术机构获得本科学位者。

2. 能够用英语阅读文献和进行学术写作，能够用英语进行日常交流。

五、培养年限

学术型硕士学制为 3 年，实行弹性学制，学习年限最短不低于 2 年，最长不超过 5 年。

六、学分要求和课程设置

本学科学术型硕士生课程总学分为 28 学分，其中学位课程为 20 学分，非学位课程为 8 学分。另设教学环节。具体开设课程见附表。

Sociology（030301）

Discipline: Law (03)

First-Class Discipline: Sociology (0303)

1. Discipline Description

Hohai University had been authorized the master and doctoral degree awarding qualifications of subordinate discipline of Sociology respectively in 2003 and 2005, and the master degree awarding qualification of first-grade discipline of Sociology in 2005. Meanwhile, a post-doctoral research station of the discipline of Sociology had been set in Hohai University. Until now, Hohai University is the one of 21universities or research institutes who has qualifications of awarding doctoral degree of Sociology in China.

The research directions of discipline of Sociology in Hohai University are mainly focus on Migration Sociology, Rural and urban Sociology, Environmental Sociology, Social Assessment, Demography,Cultural Anthropology, Social Policy and Management,Social Work,

In the past 5 years, the researchers of discipline of Sociology in Hohai University had obtained more than 40 items of research projects from national, departmental or provincial level research foundations, such as National Philosophy and Social Science Research Foundation, National Nature Science Foundation, the Humanities and Social Science Research Foundation of the Ministry of Education, Jiangsu Provincial Philosophy and Social Science Research Foundation, National Post-Doctoral Research Foundation. Meanwhile, the discipline of Sociology had obtained about 200 research or consultant projects from WB, ADB, Ministry of Water Resource, Ministry of Agriculture, Ministry of Housing and Urban-Rural Development and other organizations or institutions. The discipline of sociology in Hohai University has sufficient fees for researching, and had good academic reputation in China.

2. Program Description

The program in Sociology aims at cultivating high-level individuals with the capacities of teaching, researching, organizing or management skills in practical or theory fields. He should have full knowledge of theories, methods and practical skills of sociology with serious learning attitude and rigorous scholarship.

3. Research Directions

The research directions in the program will mainly focus on:

- Migration and Resettlement Sociology
- Rural and Urban Sociology
- Environmental Sociology
- Social Assessment
- Demography
- Cultural Anthropology
- Social Policy and Social Governance)
- Social Works

4. Application Requirements

(1) You have received the bachelor degree from the domestic and overseas universities or academic institutions accredited by the Ministry of Education.

(2) You have the ability to read and write academic papers and communicate in English.

5. Educational System and Duration

The master program is 3 years; the duration is minimum 2 years and no more than 5 years.

6. Credits and Courses

A master student must take at least 28 credits of courses, including 20 credits of required course of the degree and 8 credits of Non-required course of the degree.

社会学全英文留学硕士研究生课程设置

Courses for Master Students of Sociology

课程类别 Categories		课程编号 No.	课程名称 name	学时 hours	学分 credit	开课学期 term	备注 Note
学位课程 20 学分 Required course of the degree 20Credits	公共课程 General Courses	2015LXS01	*汉语Ⅰ Chinese Language Ⅰ	32	2	秋 fall	必修 Required Course
		2015LXS02	汉语Ⅱ Chinese Language Ⅱ	32	2	春 spring	
		2015LXS03	*中国概况 Introduction toChina	32	2	秋 fall	
	学科基础课程 Discipline Basic Courses	2015JC15	社会研究方法 Social Research Methods	32	2	秋 fall	
		2015JC20	社会理论 Social Theory	32	2	秋 fall	
		2015JC18	经济学 Economics	32	2	秋 fall	
		2017GG02	数据分析技术 Data Analysis	32	2	秋 fall	
	专业基础课程 Major BasicCourses	2015GG10	应用心理学 Applied psychology	32	2	春 spring	选修 2 学分 2Credits at least
		2015GG18	文化人类学 Culture Anthropology	32	2	春 spring	
		2017GG03	社会学经典导读 Introduction to Classical Sociological Works	32	2	春 spring	
	专业课程 Major Courses	2015GG16	移民社会学 Migration and Resettlement Sociology	32	2	秋 fall	选修 4 学分 4Credits at least
		2015GG17	环境社会学 Environment Sociology	32	2	秋 fall	
非学位课 8 学分 Non-degree coursesof the degree courses 8 Credits		2015LXS05	*跨学科选修 Interdisciplinary Elective	32	2		必修 Required Course
		2015LXS06	*综合素质课 Comprehensive Quality	16	1		
		2015GG11	发展研究 Study on Development	32	2	秋 fall	选修 5 学分 5Credits at least
		2015GG09	社会评价 Social Assessment	32	2	秋 fall	
		2017GG04	经济社会学 Economic Sociology	32	2	秋 fall	
		2015JC19	管理学 Management	32	2	秋 fall	
		2017GG05	民族志 Ethnography	32	2	春 spring	
		2017GG06	社会分层与社会流动 Social Stratification and Mobility	32	2	春 spring	
		2015JC14	公共政策分析 Study on Public Policy	32	2	秋 fall	

教学环节 Academic Activities	学术活动 Seminar and Conferences	必修 Required Course
	科学研究 Scientific Research	
	文献阅读与综述 Literature Reading and Reviewing	

数学（0701）

学科门类：理学（07）一级学科：数学（0701）

一、专业描述

河海大学数学一级学科硕士点于2005年设立，招收留学硕士研究生至今已有十多年的历史。本学科点下设基础数学（070101）、计算数学（070102）、应用数学（070104）、运筹学与控制论（070105）四个二级学科点。现有在职教师65人，其中，教授5人，副教授29人，现有博士生指导教师2人，硕士生指导教师18人。研究方向主要包括偏微分方程及其应用、非线性泛函分析及其应用、常微分方程与动力系统、科学与工程计算、图像处理与反问题、数据分析与机器学习、密码学与网络安全、随机神经网络等等。

二、培养目标

本学科旨在通过此硕士学位项目来培养满足下列条件的优秀人才：能够独立进行原创的科学研究，以此促进本学科知识的发展；掌握扎实的专业知识和高水平的可迁移技能，即具有能够将所学知识运用于解决各种实际工作问题的能力，包括思维能力和创造能力、交流和表达能力以及组织管理和计划能力；能够回馈社会，促进社会、经济与文化的发展。

三、 研究方向

1. 基础数学（Pure Mathematics）
2. 计算数学（Computational Mathematics）
3. 应用数学（Applied Mathematics）

4. 运筹学与控制论（Operational Research and Control Theory）

四、 申请条件

1. 已在我国认可的海内外高校或学术机构获得本科学位者。
2. 能够用英语进行课程学习、阅读文献和进行学术写作，能够用英语进行日常交流。

五、 培养年限

学术型硕士学制为 3 年，实行弹性学制，学习年限最短不低于 2 年，最长不超过 5 年。

六、 学分要求和课程设置

硕士总学分为28学分，其中学位课程为18学分，非学位课程为10学分。

Mathematics (0701)

Discipline: Science（07

First-Class Discipline:Mathematics（0701）

1. Discipline Description

The mathematical discipline of Hohai University was authorized to confer Master degrees in four sub-disciplines within mathematics in 2005, including Pure Mathematics (070101), Computational Mathematics (070102), Applied Mathematics (070104), Operational Research and Control Theory (070105). Currently the discipline of Mathematics has 65 academic staff, among them there are 5 professors and 29 associate professors, including 2 PhD supervisors and 18 Master supervisors. Their research interests include but not limited to partial differential equation and its application, nonlinear functional analysis and its application, ordinary differential equations and dynamical systems, scientific and engineering computing, picture processing and inverse problem, data analysis and machine learning, cryptography and network security, random neural network, etc.

2. Program Description

The research degree program aims to provide advanced education to nurture people who can:

(1) contribute to the advancement of knowledge through independent and original research;

(2) demonstrate specialist subject knowledge and a high level of transferable skills, including analytical, communication and leadership skills;

(3) enhance economic, social and cultural development.

3. Research Directions

- Pure Mathematics;
- Computational Mathematics;
- Applied Mathematics;
- Operational Research and Control Theory.

4. Application Requirements

(1) You have received the bachelor degree from the domestic and overseas universities or academic institutions accredited by the Ministry of Education.

(2) You have the ability to read and write academic papers and communicate in English.

5. Educational System and Duration

The master program is 3 years; the duration is minimum 2 years and no more than 5 years.

6. Credits and Courses

A master student must take at least 28 credits of courses, including 18 credits of required course of the degree and 10 credits of Non-required course of the degree.

数学全英文留学硕士研究生课程设置

Courses for Master Students of Mathematics

课程类别 Categories		课程编号 No	课程名称 Course	学时 Hours	学分 Credit	开课学期 Term	备注 Note
学位课程 18 学分 Required course of the degree 18 Credits	公共课程 General Courses	2015LXS01	*汉语 I Chinese Language I	32	2	秋 Fall	必修 Required Course
		2015LXS02	*汉语 II Chinese Language II	32	2	春 Spring	
		2015LXS03	*中国概况 Introduction to China	32	2	秋 Fall	
	学科基础课程 Discipline Basic Courses	2015JC03	数值分析 Numerical Analysis	48	3	秋 Fall	必修 Required Course
		2015JC01	数学物理方程 Equations of Mathematical Physics	32	2	春 Spring	
	专业基础课程 Major Basic Courses	2015JC02	应用数学 Applied Mathematics	64	4	春 Spring	必修 Required Course
	专业课程 Major Courses	2015JC04	最优化方法 Optimization Methods	32	2	秋 Fall	必修 Required Course
		2017LX01	傅里叶分析,小波及其应用 Fourier Analysis, Wavelets, and Applications	32	2	春 Spring	选修 Optional Course
		2017LX02	计算几何 Computational Geometry	32	2	春 Spring	选修 Optional Course
非学位课程 10 学分 Non-degree courses of the degree Course 10 Credits		2015LXS05	*跨学科选修 Interdisciplinary Elective	32	2		必修 Required course
		2015LXS06	*综合素质课 Comprehensive Quality	16	1		必修 Required Course
		2015LC03	有限单元法 Finite Element Method	48	3	秋 Fall	必修 Required Course
		2015LC02	高等计算力学 Advanced Computational Mechanics	32	2	春 Spring	
		2015LXS07	英文科技写作 The Art of Scientific Presentation and Writing in English	32	2	春/秋 Spring/ Fall	

地图学与地理信息系统（070503）

学科门类：理学（07）一级学科：地理学（0705）

一、专业描述

河海大学2000年开始招收地理信息系统（GIS）本科生，2003年起开始招收地图学与地理信息系统专业硕士生，迄今本专业已毕业研究生200余人。本学科拥有一支优秀的教师队伍。现有教学科研人员24人，其中教授4人、副教授10人，80%以上的教师拥有博士学位。河海大学地图学与地理信息系统学科以地理信息系统技术与应用研究为重点，以数字流域与地理信息系统集成建模研究为特色，着重研究地理信息认知、空间分析与专业建模、遥感机理与定量反演，为全球变化、区域资源环境、数字流域以及防灾减灾等重大问题决策提供辅助决策和技术支撑。近年来，本学科教师主持和参与了国家自然科学基金以及国家973计划、863计划、国家支撑计划等多项科研项目，经费充足。研究生就业主要面向规划、国土、水利、交通、电力、能源等国民经济各部门，部分研究生可从事资源环境、区域可持续发展、全球变化研究工作。

二、培养目标

本学科着重培养具有较高地理学素养的地理信息系统理论与应用技术方面的高层次人才，能够胜任教学、科研或大型地理信息应用项目的设计、开发和管理工作。要求具有数学、地理学及计算机应用方面的理论知识；具有扎实的地理信息系统、遥感、地图学及“3S”技术等方面的技术能力；能够进行学术交流，掌握本学科的理论与技术前沿动态；能够进行大型GIS应用系统和遥感信息工程的开发与研究，具有解决实际问题的能力。

三、研究方向

1、GIS 空间分析与建模（GIS-based Spatial Analysis and Modeling）

2、GIS 设计、开发与应用（GIS Design, Development and Applications）

3、遥感信息机理与定量方法（Qualitative Remote Sensing and its Mechanism）

4、遥感信息工程（Remote Sensing Information Engineering）

5、数字流域、数字海洋（Digital Watershed and Digital Ocean）

四、申请条件

1、已在我国认可的海内外高校或学术机构获得本科学位者。

2、能够用英语进行课程学习、阅读文献和进行学术写作，能够用英语进行日常交流。

五、培养年限

学术型硕士学制为 3 年，实行弹性学制，学习年限最短不低于 2 年，最长不超过 5 年。

六、学分要求和课程设置

本专业硕士留学研究生课程总学分为 28 学分，其中学位课程为 19 学分，非学位课程为 9 学分。另设教学环节。具体开设课程见附表。

Cartography and Geographical Information System（070503）

Discipline: Science（07）

First-Class Discipline: Geography（0705）

1. Discipline Description

Hohai University began recruiting Geographic Information system (GIS) undergraduate in 2000. It started enrolling Master majoring in this discipline in 2013. Master students were enrolled with the first-class discipline of Geography since 2007. So far, more than 240 graduate students have graduated from this specialty, which has 24 teaching and research staff totally, including 4 professors and 10 associate professors. More than 80% teachers have doctoral degrees. The disciplines of Cartography and Geographical Information System in Hohai University focuses on the GIS technology and application research, taking the digital watershed and GIS integrated modeling as the significant research field and laying stress on the research of geographic information cognition, spatial analysis and professional modeling, remote sensing mechanism and quantitative inversion. These researches can provide auxiliary decision-making and technical support for major issues such as global change, regional resource environment, digital watershed and disaster prevention and mitigation. In recent years, these teachers have presided over and participated in the National Natural Science Foundation and the National 973 and 863 projects, national support plan and other major projects, a number of research results obtained provincial and ministerial level scientific awards. This specialty can support the preferable scientific research condition, which has a close research cooperation and the personnel exchanges with State Key Lab of Hydrology-Water Resources and Hydraulic Engineering, National Engineering Research Center for high efficiency utilization of water resources and engineering safety and other national research platform in university. Most Masters can find jobs in the field of planning, land, water conservancy, transportation, electricity, energy and other national economy departments, some graduate students can engage in resource environment, regional sustainable development, global change research.

2. Program Description

This specialty emphasizes on cultivating high level talents of geographic information

system theory and application technology with high geography literacy, who are capable of teaching and scientific research or designing, developing, and managing large geographic Information application project. Students of this major should master theoretical knowledge of mathematics, geography and computer applications and command solid technical capacity of GIS, RS, Cartography and "3S" technology. They should also be able to carry out academic exchanges, grasp the theoretical and technological frontiers of the subject and have the capacity for developing and investigating large GIS application system, remote sensing information engineering and solving practical problems.

3. Research Directions

- GIS-based Spatial Analysis and Modeling
- GIS Design, Development and Applications
- Qualitative Remote Sensing and its Mechanism
- Remote Sensing Information Engineering
- Digital Watershed and Digital Ocean

4. Application Requirements

(1) You have received the bachelor degree from the domestic and overseas universities or academic institutions accredited by the Ministry of Education.

(2) You have the ability to read and write academic papers and communicate in English.

5. Educational System and Duration

The master program is 3 years; the duration is minimum 2 years and no more than 5 years.

6. Credits and Courses

A master student must take at least 28 credits of courses, including 19 credits of required course of the degree and 9 credits of Non-required course of the degree.

地图学与地理信息系统全英文留学硕士研究生课程设置

Courses for Master Students of Cartography and Geographical Information System

课程类别 Categories		课程编号 Course No	课程名称 Course Name	学时 Hours	学分 Credits	开课学期 Term	备注 Note
学位课 19 学分 Required course of the degree 19 Credits	公共课程 General Courses	2015LXS01	*汉语 I Chinese Language I	32	2	秋 fall	必修 RequiredCourse
		2015LXS02	汉语 II Chinese Language II	32	2	春 spring	
		2015LXS03	*中国概况 Introduction to China	32	2	秋 fall	
	专业基础课程 Major BasicCourses	2015JC03	数值分析 Numerical Analysis	48	3	秋 fall	必修 RequiredCourse
		2015JC11	最优化方法 Optimization Methods	32	2	秋 fall	
	专业课程 Major Courses	2017DX01	高级遥感 Advanced Remote Sensing	32	2	春 spring	选修 8 学分 8 Credits at least
		2015DX03	GIS 空间分析 GIS and Spatial Analysis	32	2	春 spring	
		2015DX01	现代大地测量学 Modern Geodesy	32	2	春 spring	
		2017DX02	数字高程模型 Digital Elevation Model	32	2	春 spring	
		2015DX06	遥感科学与进展 Frontiers of Remote Sensing Science	32	2	春 spring	
		2017DX03	区域发展规划 Regional Development Planning	32	2	秋 fall	
非学位课程 9 学分 Non-required course of the degree 9 Credits		2015LXS05	*跨学科选修 Interdisciplinary Elective	32	2		必修课 RequiredCourse
		2015LXS06	*综合素质课 Comprehensive Quality	16	1		
		2017DX04	全球导航卫星系统原理及应用 Global Navigation Satellite System Principle and Application	32	2	秋 fall	选修 6 学分 6Credits at least
		2015DX07	环境大地测量学 Environmental Geodesy	32	2	秋 fall	
		2017DX05	高光谱遥感 Hyperspectral Remote Sensing	32	2	春 spring	
		2017DX06	微波遥感 Microwave Remote Sensing	32	2	春 spring	
		2017DX07	水文遥感 Hydrologic Remote Sensing	32	2	春 spring	
教学环节 Academic Activities		学术活动 Seminar and Conferences					必修 Required Course
		科学研究 Scientific Research					
		文献阅读与综述 Literature Reading and Reviewing					

工程力学（080104）

学科门类：工学（08）　一级学科：力学（0801）

一、专业描述

力学是应用物理科学的一个分支学科，主要研究物体或系统受外力作用后的响应。工程力学属于力学学科中的一个二级学科，专注于求解工程实践中所遇到的各种相关力学和工程问题。需要综合应用数学、力学和工程科学中的基本原理，强调力学理论的工程应用。工程力学在土木水利工程、机械工程、航空航天工程等领域有着广泛的应用。

河海大学工程力学学科，是国家重点学科和江苏省重点学科。其主要特色是紧密结合水利水电和土木工程，着重解决重大水电工程中的复杂结构分析和复杂工程问题的求解。学科从属于力学与材料学院，其前身工程力学系是河海大学最早建立的 5 个系科之一。工程力学系的创始人、著名力学专家徐芝纶院士也是水工结构工程学科博士点的第一个博士生导师。力学学科目前有 45 名教学科研人员，其中包括 26 名教授，15 名博导。近年来承担了大量与与水电工程有关的科研课题，包括多项国家重点基础研究（973）项目课题，一项重点基金和一项杰出青年基金，大量面上基金、青年基金和横向项目，近三年科研经费总额超过 4 千万。

二、培养目标

河海大学工程力学硕士生的培养目标为，致力于培养适应现代土木水电工程需求的工程技术人才。毕业生应掌握力学基础理论和系统的工程实践知

识，具有较强的工程建模和分析计算能力，能够胜任大型工程的技术工作和技术性管理工作。

培养方案的设计为确保学生能达到预定的培养目标，包含了课程学习、相关学术训练和专业课题研究。学生需要完成一定数量的研究生基础和专业课程学习，并且参加导师课题组的学术活动，在导师指导下，完成选定的课题研究和硕士学位论文。

三、研究方向

工程力学专业全英文硕士生培养计划包括（但不限于）一下几个主要研究方向:

1. 工程结构的静、动力分析
2. 工程问题的数值建模和模拟
3. 工程材料特性和结构安全

四、申请条件

工程力学全英文专业硕士生申请人需要满足以下条件:

1、已在我国认可的海内外高校或学术机构获得本科学位者。

2、能够用英语进行课程学习、阅读文献和进行学术写作，能够用英语进行日常交流。

五、培养年限

学术型硕士学制为 3 年，实行弹性学制，学习年限最短不低于 2 年，最长不超过 5 年。

六、学分要求和课程设置

本专业硕士留学研究生课程总学分为28学分，其中学位课程为18学分，非学位课程为10学分。另设教学环节。硕士生还必须结合研究课题完成一篇硕士论文，并通过答辩。工程力学专业硕士课程设置如下表。

Engineering Mechanics（080104）

Discipline：Engineering（08）

First-Class Discipline：Mechanics（0801）

1. Discipline Description

Mechanics is a discipline of applied physical science that studies the responses of bodies or body systems to the external forces. Engineering mechanics is an applied branch of mechanics devoted to the solution of mechanics problems arising in engineering practices, through integrated application of mathematical, scientific and engineering principles. Research in engineering mechanics has wide applications in many engineering fields including civil engineering, mechanical engineering, aeronautics and astronautics engineering, etc.

Engineering Mechanics in Hohai University is a key discipline of the country as well as a key discipline of Jiangsu Province. Highlighted by engineering applications, research in the Discipline of Engineering Mechanics at Hohai University is mainly focused on practical problems encountered in large hydro-electric engineering, geotechnical and structural engineering. Special emphasis is placed on the understanding of physical principles underlyingmodern engineering design. The discipline is accommodated in the college of Mechanics of Materials, which was formally known as the Department of Engineering Mechanics, one of the 5 earliest found departments in Hohai University. The late Prof. Xu Zhilun, a renowned engineering scientist in China and a fellow of the Chinese Academy of Science, was a department founder. He was also the first PhD supervisor in the discipline of hydraulic engineering. Currently the discipline has 45 academic staff, among them 26 are professors and PhD supervisors. They are engaged in many research projects in the areas of Structural Analysis and Safety Assessment of High Dams, the Mechanical Property of Engineering Materials, Computational Mechanics and Engineering Simulations, etc. In the last three years, the discipline has undertaken several research projects in the National Basic Research Program (973) funded by the Ministry of Science and Technology, a NSFC priority research project and an Outstanding Young Scientist Funding, many NSFC general research

projects and other research and consulting projects. The total research funding in the last three years has exceeded RMB40 million Yuan.

2. Program Description

The program aims to foster qualified engineers in response to the needs of modern civil engineering. Graduates will be equipped with knowledge of the mechanics principles and skills for solving technical problems in engineering practices, and can undertake demanding technical works in large engineering projects.

The program is designed to help students achieve this goal through course study and research work. Students will have access to high level courses leading to a graduate degree. They will also have the opportunities to increase their knowledge in understanding the engineering principles and to develop their problem solving techniques through joining a research project and producing a master thesis.

3. Research Directions

The research fields for the M.Eng. program in the discipline of Engineering Mechanics fall within the following main research fields:

- Static and dynamic analysis of engineering structures;
- Numerical Modelling and simulations of Engineering Problems;
- Optimization of engineering structures
- Engineering Materials and Structure Safety

4.Application Requirements

(1) You have received the bachelor degree from the domestic and overseas universities or academic institutions accredited by the Ministry of Education.

(2) You have the ability to read and write academic papers and communicate in English.

5. Educational System and Duration

The master program is 3 years; the duration is minimum 2 years and no more than 5 years.

6. Credits and Courses

A master student must take at least 28 credits of courses, including 18 credits of required course of the degree and 10 credits of Non-required course of the degree. A dissertation of the research subject and an oral defense are also required. Module structure of the doctorate program of Engineering Mechanics is listed below.

工程力学全英文留学硕士研究生课程设置

Courses for Master Students of Engineering Mechanics

课程类别 Categories		课程编号 No	课程名称 Course	学时 Hours	学分 Credit	开课学期 Term	备注 Note
学位课程 18 学分 Required course of the degree 18 Credits	公共课程 General Courses	2015LXS01	*汉语Ⅰ Chinese Language Ⅰ	32	2	秋 fall	必修 Required course
		2015LXS02	汉语Ⅱ Chinese Language Ⅱ	32	2	春 spring	
		2015LXS03	*中国概况 Introduction to China	32	2	秋 fall	
	学科基础课程 Discipline Basic Courses	2015JC01	数学物理方程 Partial Differential Equations of Mathematical Physics	32	2	秋 fall	必修 Required course
		2015JC03	数值分析 Numerical Analysis	32	2	秋 fall	
	专业基础课程 Major BasicCourses	2015JC09	弹性力学 Theory of Elasticity	48	3	秋 fall	选修 4 学分 4 Credits at least
		2015LC03	有限单元法 Finite Element Method	32	2	秋 fall	
		2015LC04	流体力学 Fluid Mechanics	32	2	秋 fall	
	专业课程 Major Courses	2015LC05	塑性力学 Engineering Plasticity	32	2	春 spring	选修 4 学分 4 Credits at least
		2015JC10	结构动力学 Structural Dynamics	32	2	春 spring	
		2015LC06	材料结构与性能 Structures and Properties of Material	32	2	春 spring	
非学位课程 10 学分 Non-required course of the degree 10 Credits		2015LXS05	跨学科课程 A course in other disciplines	32	2		必修 Required Courses
		2015LXS07	英文科技写作 The Art of Scientific Presentation and Writing in English	32	2	秋、春 fall、spring	选修 8 学分 8Credits at least
		2015LC02	高等计算力学 Advanced computational mechanics	32	2	春 spring	
		2015LC07	结构优化设计 Structural Optimization	32	2	春 spring	
		2015LC08	实验力学 Modern Experimental Mechanics	32	2	春 spring	
		2015LC09	研究专题 Special topics in research area	32	2		
教学环节 Academic Activities		学术活动 Seminar and Conferences					必修 Required Courses
		科学研究 Scientific Research					
		文献阅读与综述 Literature Reading and Reviewing					

机械工程（0802）

学科门类：工学（08）一级学科：机械工程（0802）

一、专业描述

河海大学机械学科创建于 1986 年，1990 年获“机电控制及自动化”硕士点，1996 年列为水利部重点学科, 1994 年、1996 年和 2003 年依次获“机械设计及理论”、“材料加工工程”和“机械制造及其自动化”硕士点，2005 年设立“机械工程”一级学科硕士点。现有博士生导师 5 名、教授 15 名。

本学科围绕“水利特色，学科融合”建设目标，紧密跟踪与引领学科发展动态，在疏浚技术与装备、机械设计理论、水利抗洪抢险机械、水工金属结构、水工构筑物探测与修复、新能源利用技术的理论与应用研究、计算机辅助设计与制造及水下机器人技术等方面进行了大量的研究，形成了独具特色的研究方向。

二、培养目标

掌握机械工程学科扎实的基础理论知识、系统的专门知识和技能方法，对本学科的国内外现状和发展趋势、前沿领域具有系统深入的了解；具有从事本学科的科学研究或担负专门技术工作的能力，能比较熟练使用外语阅读、撰写科技论文和进行学术交流。

三、研究方向

1．机电系统设计与机器人技术 (Design of Mechatronic System and Robotics)

2．疏浚技术与设备(Dredging Technology and Equipment)

3. CAD/CAPP/CAM/CAE 系统集成技术研究与开发 (CAD/CAPP/CAM/CAE System-integrated Technology and Development)

4．机械结构设计与有限元分析(Mechanical Structure Design and Finite Element Analysis)

5．数字化制造先进技术(Advanced Technology of Digital Manufacturing)

四、申请条件

1、已在我国认可的海内外高校或学术机构获得本科学位/硕士学位者。

2、能够用英语进行课程学习、阅读文献和进行学术写作，能够用英语进行日常交流。

五、培养年限

攻读学术型硕士学制为 3 年，实行弹性学制，学习年限最短不低于 2 年，最长不超过 5 年。

六、学分要求和课程设置

本专业硕士生研究生课程总学分为 28 学分，其中学位课程为 19 学分，非学位课程为 9 学分。另设教学环节。具体开设课程见附表。

Mechanical Engineering(0802)

Discipline: Engineering (08)

First-Class Discipline: Mechanical Engineering (0802)

1. Discipline Description

The Mechanical discipline of Hohai University was founded in 1986 and it started offering M.E. degree in “Mechanical and Electrical Control and Automation” from 1990. Mechanical Engineering was recognized as a key discipline of the Ministry of Water Resources (MWR) in 1996. The M.E. degrees in “Mechanical Design and Theory”, “Material Processing Engineering” and “Mechanical and Electrical Control and Automation” were offered in 1994, 1996 and 2003 respectively. And the first-level M.E. degree in “Mechanical Engineering” was approved in 2005. Now there are 5 PhDsupervisors and 15 professors under this discipline.

To achieve the goal of “Water Feature, Discipline Integration”, this discipline closely follows and leads the development trends of subject, and several researches, including the Dredging Technique and Equipment, Mechanical Design and Theory, Water Machinery for Flood-fighting and Emergency Rescues, Hydraulic Metal Structure, Hydraulic Structure Detection and Repair, the Theory and Application of New Energy Technology, Computer Aided Design and Underwater Robot Technology, are conducted. Some unique research directions have been established.

2. Program Description

The objectives are to train the students with the capabilities in:

- Mastering the solid fundamental theories andknowledge of Mechanical Engineering discipline and the systemic specialized knowledge and skills.
- Understanding the domestic and abroad developments and frontiers in this discipline in deep and conducting scientific researches and specialized technologies.
- Reading, writing academic papers and communicating with English fluently.

3. Research Directions

- Design of Mechatronic System and Robotics
- Dredging Technology and Equipment
- CAD/CAPP/CAM/CAE System-integrated Technology and Development
- Mechanical Structure Design and Finite Element Analysis

- Advanced Technology of Digital Manufacturing

4. Application Requirements

(1) You have received the bachelor degree from the domestic and overseas universities or academic institutions accredited by the Ministry of Education.

(2) You have the ability to read and write academic papers and communicate in English.

5. Educational System and Duration

The master program is 3 years; the duration is minimum 2 years and no more than 5 years.

6. Credits and Courses

A master student must take at least 28 credits of courses, including 19 credits of required course of the degree and 9 credits of Non-required course of the degree. The detail course list is attached as follows:

机械工程全英文留学硕士研究生课程设置

Courses for Master Students of Mechanical Engineering

课程类别 Categories		课程编号 No	课程名称 Course	学时 Hours	学分 Credit	开课学期 Term	备注 Note
学位课程 19 学分 Required course of the degree 19 Credits	公共课程 General Courses	2015LXS01	*汉语Ⅰ Chinese Language Ⅰ	32	2	秋 fall	必修 Required Course
		2015LXS02	汉语Ⅱ Chinese Language Ⅱ	32	2	春 spring	
		2015LXS03	*中国概况 Introduction to China	32	2	秋 fall	
	学科基础课程 Discipline Basic Courses	2015JC03	数值分析 Numerical Analysis	48	3	秋 fall	
		2015JC04	最优化方法 Optimization Methods	32	2	秋 fall	
	专业基础课程 Major BasicCourses	2017JD01	数字化制造技术与方法 Digital manufacturing technology and the method	32	2	春 spring	必修 Required Course
		2015JD02	机械设计工程学 Mechanical Design Engineering	32	2	春 spring	
	专业课程 Major Courses	2015JD03	现代测试技术与应用 Technology and Application of Modern Measurement	32	2	春 spring	必修 Required Course
		2015JD04	计算机辅助设计与制造 CAD/CAM	32	2	秋 fall	
非学位课程 9 学分 Non-required course of the degree 9 Credits		2015LXS05	*跨学科选修 Interdisciplinary Elective	32	2		必修 Required Course
		2015LXS06	*综合素质课 Comprehensive Quality	16	1		
		2017JD02	疏浚技术与设备 Dredging technology and Equipment	32	2	秋 fall	选修 4 学分 4 Credits at least
		2015JD06	人机工程学 Ergonomics	32	2	春 spring	
		2015JD01	弹性力学与有限单元法 Elasticity and Finite Element Method	32	2	秋 fall	
		2015JD08	两相流动 Two-Phase Flow	32	2	春 spring	
		2017JD03	材料加工工程 Materials Processing Engineering	32	2	秋 fall	
		2017JD04	机械结构设计与有限元分析 Mechanical Structure Design and Finite Element Analysis	32	2	春 spring	
		2017JD05	机电控制与机器人技术 Mechatronics and Robotics	32	2	春 spring	
		2015LXS07	英文科技写作 The Art of Scientific Presentation and Writing in English	32	2	春 spring	必修 Required Course
教学环节 Academic Activities		学术活动 Seminar and Conferences					必修 Required Course
		科学研究 Scientific Research					
		文献阅读与综述 Literature Reading and Reviewing					

材料科学与工程（0805）

学科门类：工学（08）一级学科：材料科学与工程（0805）

一、专业描述

材料科学与工程一级学科是我校重点建设学科，始建于 1952 年，1983 年开始招收硕士研究生，1996 年获“材料学”和“材料加工工程”硕士学位授予权，2005 年获该一级学科硕士学位授予权，目前分设材料物理与化学、材料学、材料加工工程 3 个二级学科方向，专注于材料科学理论在工程建设中的应用。

学科研究以高性能混凝土材料、结构修复与防护新材料、高强韧金属以及焊接等为特色，研究内容涉及高性能水泥基材料、高性能金属基材料、材料表面工程、材料成形与加工和高分子合成与改性等。材料学科目前有 43 名教学科研人员，其中包括国家千人 1 名、江苏省特聘教授 2 名、教授 13 人，硕士生导师 35 人，学科队伍中具有博士学位的教师占教师总数的 95%，60%以上的教师具有海外进修经历。近年来承担了大量与水利水电工程、海洋工程有关的科研课题，有 10 余项成果获国家及部省级奖励。毕业生广泛服务于土木、交通、水利、海洋、铁路、电力等工程领域，受到用人单位好评，人才培养效果显著。

二、培养目标

培养具有实事求是的科学态度和端正严谨的诚信学风，理论联系实际，善于钻研与创新，具有良好的团队合作精神，具有坚实的本学科基础理论和系统的专业知识，对材料学科的现状和发展趋势有较为全面的了解，掌握本学科基本工艺与装备、现代分析与测试技术和性能评价方法，可应用一门外语进行科学研究与交流，具有一定独立从事本学科科学研究和承担专门技术工作的能力，面向材料开发和利用需求的综合型的高层次学术型人才。

三、研究方向

1、材料物理与化学(Materials Chemistry and Physic)

2、材料学(Materials Science)

3、材料加工工程(Materials Process Engineering)

四、申请条件

1、已在我国认可的海内外高校或学术机构获得本科学位者。

2、能够用英语进行课程学习、阅读文献和进行学术写作，能够用英语进行日常交流。

五、培养年限

学术型硕士学制为 3 年，实行弹性学制，学习年限最短不低于 2 年，最长不超过 5 年。

六、学分要求和课程设置

本专业硕士留学研究生课程总学分为 28 学分，其中学位课程为 18 学分，非学位课程为 10 学分。另设教学环节。具体开设课程见附表。

Materials Science and Engineering (0805)

Discipline: Engineering (08)

First-Class Discipline: Materials Science and Engineering (0805)

1. Discipline Description

The discipline of Materials Science and Engineering in Hohai University (hereinafter referred to as HHU-MSE) founded in 1952 and began to recruit graduate students from 1983. It was authorized to offer Master degrees in the first-level discipline Materials Science and Engineering in 2005. HHU-MSE was named as one of the key disciplines of Hohai University and now it has three second-grade interdisciplinary fields involving Materials Chemistry and Physic, Materials Science, and Materials Process Engineering.HHU-MSE discipline is devoted to the solution of materials problems arising in various engineering practices, through integrated application of mathematical, mechanical, scientific and engineering principles.

After 60 years' construction, the subject of HHU-MSE has distinguishing features and successful experience in developing high performance concrete materials, investigating the durability of materials and the new technologies of structure repair materials. The research areas include concrete materials, composites, new type construction materials, nanocrystal/ultrafine-grained structural materials and geosynthetic materials, etc. Currently the discipline has a strong, stable and dynamic academic team with 43 academic staff. Also in the team, there is one member from the One Thousand Talent Program, two Distinguished Professors of Jiangsu Province, 13 professors and 35 master supervisors. The percentages of faculty members with Ph.D. Degrees and abroad study or work experience are 95% and 60 %, respectively. They are engaged in many research projects in the areas of prepare and application of high-performance concrete materials (used in high dams, bridges, rail transit and mine), the mechanical property of key engineering materials, new repair materials and technologies, high performance metallic materials, etc. It has been awarded more than 10 national, ministerial or provincial awards. Graduates widely work in the field of civil engineering, transportation, water conservancy, marine, railway, electricity and other engineering areas with good evaluation.

2. Program Description

(1) To have practical, realistic and scientific attitude, and to generate proper, meticulous and honest academic atmosphere; to connect theory with practice; to be good at intensive study and teamwork.

(2) To thoroughly command fundamental theories and systemic professional knowledge of Materials Science and Engineering; to be able to perform scientific or engineering work independently.

(3) To completely understand the current situation and future trend of Materials Science and Engineering and the latest development of relevant research fields.

3. Research Directions

- Materials Chemistry and Physic
- Materials Science
- Materials Process Engineering

4. Application Requirements

(1) You have received the bachelor degree from the domestic and overseas universities or academic institutions accredited by the Ministry of Education.

(2) You have the ability to read and write academic papers and communicate in English.

5. Educational System and Duration

The master program is 3 years; the duration is minimum 2 years and no more than 5 years.

6. Credits and Courses

A master student must take at least 28 credits of courses, including 18 credits of required course of the degree and 10 credits of Non-required course of the degree.

材料科学与工程全英文留学硕士研究生课程设置

Courses for Master Students of Materials Science and Engineering

课程类别 Categories		课程编号 No	课程名称 Course	学时 Hours	学分 Credits	开课学期 Term	备注 Note
学位课程 18 学分 Required course of the degree 18 Credits	公共课 General Courses	2015LXS01	*汉语 I Chinese Language I	32	2	秋 fall	必修课 Required Course
		2015LXS02	汉语 II Chinese Language II	32	2	春 spring	
		2015LXS03	*中国概况 Introduction to China	32	2	秋 fall	
	专业基础课程 Major Basic Courses	2015JC01	数学物理方程 Partial Differential Equations of Mathematical Physics	32	2	秋 fall	必修课 Required Course
		2015JC03	数值分析 Numerical Analysis	48	3	秋 fall	
	专业课 Major Courses	2017LC01	材料物理化学 Physical Chemistry of Materials	48	3	秋 fall	选修 8 学分 8 Credits at least
		2017LC02	材料结构与性能 Structure and properties of Materials	32	2	秋 fall	
		2017LC03	材料现代研究方法 Modern Analytical Methods for Materials	32	2	秋 fall	
		2017LC04	高等材料学 Advanced Materials Science	32	2	秋 fall	
		2017LC05	物理冶金 Physical Metallurgy	48	3	春 spring	
		2017LC06	功能高分子 Functional Polymers	32	2	春 spring	
非学位课程 11 学分 Non-required course of the degree 11 Credits		2015LXS05	*跨学科选修 Interdisciplinary Elective	32	2		必修课 Required Course
		2015LXS06	*综合素质课 Comprehensive Quality	16	1		
		2015LXS07	英文科技写作 The Art of Scientific Presentation and Writing in English	32	2	秋 fall	选修 8 学分 8 Credits at least
		2017LC07	材料腐蚀与防护 Corrosion and Protection of Materials	32	2	春 spring	
		2017LC08	材料失效分析 Failure Analysis of Materials	32	2	春 spring	
		2017LC09	材料表面技术 Surface Technology of Materials	32	2	春 spring	
		2017LC10	液态金属成型技术 Casting Process and Technology	32	2	春 spring	
		2015LC02	高等计算力学 Advanced computational mechanics	32	2	春 spring	
教学环节 Academic Activities		学术活动 Seminar and Conferences					必修 Required Course
		科学研究 Scientific Research					
		文献阅读与综述 Literature Reading and Reviewing					

电气工程（0808）

学科门类：工学（08）一级学科：电气工程（0808）

一、专业描述

电气工程一级学科(0808)覆盖五个二级学科，即电机与电器(080801)、电力系统及其自动化(080802)、高电压与绝缘技术(080803)、电力电子与电力传动(080804)、电工理论与新技术(080805)，主要研究方向覆盖了电能生产、传输、变换、应用、检测、控制、调试和管理的全过程。该学科成立于 1987 年，经过多年的发展，已在电力系统运行与控制、地区电力系统自动化、电力设备故障诊断、电力电子与电气传动、电机与控制、风力发电等方面取得显著成果。本学科科研条件良好，建有“可再生能源发电技术教育部工程研究中心”、“电力系统动态模拟实验室”和“电力系统健康诊断实验室”，拥有“电力系统自动化”、“电力电子与电气新技术”、“智能电网”和“新能源”等多个研究所。近年来，本学科快速发展，每年招收数十名海外博士生和硕士生，为国际电气工程领域的人才培养和科学进步做出了重要贡献。

二、培养目标

在本门学科上掌握坚实的基础理论和系统的专门知识；具有从事科学研究工作或独立担负专门技术工作的能力。

三、研究方向

1．电力系统运行与控制（Power System Operation and Control）

2．地区电力系统自动化（Automation of Distribution Power Systems）

3．电气设备故障诊断与信息处理（Fault Diagnosis and Information Processing for Electrical Equipments ）

4．新型交直流电气传动系统（Novel AC/DC Electrical Drive System）

5．可再生能源发电系统（Renewable Energy Conversion System）

6．电力系统过电压与保护（Overvoltage and Protection of Power System）

四、申请条件

1、已在我国认可的海内外高校或学术机构获得本科学位者。

2、能够用英语进行课程学习、阅读文献和进行学术写作，能够用英语进行日常交流。

五、培养年限

学术型硕士学制为 3 年，实行弹性学制，学习年限最短不低于 2 年，最长不超过 5 年。

六、学分要求和课程设置

本专业硕士留学研究生课程总学分为 28 学分，其中学位课程为 19 学分，非学位课程为 9 学分。另设教学环节。具体开设课程见附表。

Electrical Engineering (0808)

Discipline: Engineering (08)

First-Class Discipline: Electrical Engineering (0808)

1. Discipline Description

The Discipline of electrical engineering (0808) covers 5 secondary disciplines. They are Electric Machine and electric appliance (080801), power system and its automation (080802), high voltage and Insulation technology (080803), power electronics and electric drive (080804), Electrician principles and new technologies (080805). The main research directions cover the whole procedure of energy production, transmission, conversion, usage, detection, control, testing and management. This discipline was set up in 1987. The Discipline of electrical engineering in Hohaiuniversity had got much success in Power System Operation and Control, Automation of Distribution Power Systems, Fault Diagnosis and Information Processing for Electrical Equipments, Novel AC/DC Electrical Drive System, Renewable Energy Conversion System, power electronics and electric drive. The major of power electrical engineering and its automation in Hohai University is state-class major. The Discipline of electrical engineering is university-class key discipline.Thediscipline of electrical engineering has good research conditions. We have the Research Center for Renewable Energy Generation Engineering (Hohai University), Ministry of Education, power system dynamic simulation lab., and power system healthy diagnosis lab. and the research center of power system automation, power electronics and new electrical technology, smart grid and renewable energy. In recent years, the graduates go to utilities, large state companies, academic institutions and universities.

2. Program Description

To take up the principle theories and systemic major knowledge in electrical engineering, have capability of doing research works or independently taking on specialized technical works.

3. Research Directions

- Power System Operation and Control
- Automation of Distribution Power Systems
- Fault Diagnosis and Information Processing for Electrical Equipments

- Novel AC/DC Electrical Drive System
- Renewable Energy Conversion System
- Overvoltage and Protection of Power System

4. Application Requirements

(1) You have received the bachelor degree from the domestic and overseas universities or academic institutions accredited by the Ministry of Education.

(2) You have the ability to read and write academic papers and communicate in English.

5. Educational System and Duration

The master program is 3 years; the duration is minimum 2 years and no more than 5 years.

6. Credits and Courses

A master student must take at least 28 credits of courses, including 19 credits of required course of the degree and 9 credits of Non-required course of the degree.

电气工程全英文留学硕士研究生课程设置

Courses for Master Students of Electrical Engineering

课程类别 Categories		课程编号 No	课程名称 Course	学时 Hours	学分 Credits	开课学期 Term	备注 Note
学位课 19 学分 Required course of the degree 19 Credits	公共课程 General Courses	2015LXS01	*汉语 I Chinese Language I	32	2	秋 fall	必修课 Required Course
		2015LXS02	汉语 II Chinese Language II	32	2	春 spring	
		2015LXS03	*中国概况 Introduction to China	32	2	秋 fall	
	专业基础课程 Major BasicCourses	2015JC03	数值分析 Numerical Analysis	48	3	秋 fall	必修课 Required Course
		2015JC04	最优化方法 Optimization Methods	32	2	秋 fall	
	专业课程 Major Courses	2015ND02	电力系统建模 Power System Modeling	32	2	春 spring	选修 8 学分 8 Credits at least
		2017ND01	电力系统稳态分析 Steady State Analysis of Power System	16	1	春 spring	
		2017ND02	高电压工程 High Voltage Engineering	16	1	春 spring	
		2017ND03	现代电力电子技术 Modern Power Electronic Engineering	16	1	春 spring	
		2015ND03	现代电力系统与清洁能源 Modern Power Systems and Clean Energy	32	2	春 spring	
		2017ND04	电力系统动态分析 Dynamic State Analysis of Power System	16	1	春 spring	
非学位课程 9 学分 Non-required course of the degree 9 Credits		2015LXS05	*跨学科选修 Interdisciplinary Elective	32	2		必修课 Required Course
		2015LXS06	*综合素质课 Comprehensive Quality	16	1		
		2015JC25	程序设计方法 Methods of Programming	32	2	秋 fall	选修 6 学分 6 Credits at least
		2015JC26	计算机辅助设计 Computer-Aided Design	32	2	春 spring	
		2015LXS07	学术论文英文写作 The Art of Scientific Presentation and Writing in English	32	2		
教学环节 Academic Activities		学术活动 Seminar and Conferences					必修 Required Course
		科学研究 Scientific Research					
		文献阅读与综述 Literature Reading and Reviewing					

信息与通信工程（0810）

学科门类：工学（08）一级学科：信息与通信工程（0810）

一、专业描述

河海大学“信息与通信工程”学科源于我校基础理论及电子学工程系的无线电设计与制造专业（1960-1962）。1998 年获批“通信与信息系统”二级学科硕士点，2003 年获批“信号与信息处理”二级学科硕士点， 2005 年和 2011 年分别获批“信息与通信工程”一级学科硕士点和一级学科博士点。2008 年通信工程专业获批江苏省精品专业，2010 年评为国家特色专业。

学科围绕“信息获取与处理、通信传输、领域应用”信息链，以行业重大需求为导向，在信息获取与处理、遥感与遥测、通信网与专用通信系统、多维信号处理、雷达探测与信号处理等几个方向形成了与国际研究前沿/热点接轨、与工程应用技术紧密结合的鲜明特色。本一级学科现有教授 13 名，博导 11 名, 其中海外取得博士学位占专任教师总人数的 31.1%， 45 岁以下中青年教师具有海外留学经历的比例为 100%。学科还拥有江苏省海洋监测设备与数据处理工程中心和江苏省水灾害监控与决策支持系统工程中心。研究生就业单位有机关事业单位、高校和科研机构、大中型 IT 企业等。

二、培养目标

在本门学科上掌握坚实的基础理论和系统的专门知识;具有从事科学研究工作或独立担负专门技术工作的能力。

三、研究方向

1. 信号与信息处理(Signal and Information Processing)

2. 通信与信息系统(Communication and Information System)

3. 遥测与信息网络(Telemetering and Information Network)

4. 微波技术与应用（Microwave Technology and Its application）

5. 智能信息系统 (Intelligent Information System)

6. 移动通信系统 (Mobile Telecommunications System)

7. 物联网技术与应用 (Internet of things and its Application)

8. 人工智能与大数据（Artificial Intelligence and Big Data）

四、申请条件

1、已在我国认可的海内外高校或学术机构获得本科学位者。

2、能够用英语进行课程学习、阅读文献和进行学术写作，能够用英语进行日常交流。

五、培养年限

学术型硕士学制为 3 年，实行弹性学制，学习年限最短不低于 2 年，最长不超过 5 年。

六、学分要求和课程设置

本专业硕士留学研究生课程总学分为28学分，其中学位课程为18学分，非学位课程为 10 学分。另设教学环节。具体开设课程见附表。

Information and Communication Engineering（0810）

Discipline：Engineering（08）

First-Class Discipline: Information and Communication Engineering（0810）

1. Discipline: Description

The discipline of Information and Communication Engineering of Hohai University derives its origin from the discipline of Radio Design and Manufacture in the department of Electronic (1960-1962). It is approved as the secondary master discipline in 2003, followed by the approval of the first-class master and doctoral disciplines in 2005 and 2011 respectively. Furthermore it was also authorized as elite program of Jiangsu Province and national specialty in 2008 and 2010.

The discipline embraces the information processing chain from signal gathering and processing, communication/transmission and application in various domains. Leaded by the industrial major demands, the discipline forms a close integration with industry and international track in hot research areas including signal gathering and processing, remote sensing, communication system, multivariate signal processing, radar detection and signal processing. The first-class discipline currently has 13 professors, 11 PhD supervisors and 31.1% faculties with overseas doctoral degrees. All faculties under 45 have overseas experiences. The discipline also has Ocean Monitoring Equipment and Data Processing centre of Jiangsu Province and Flooding Monitoring and Decision Support System Engineering Center of Jiangsu Province. Graduates mostly begin careers in governments, universities/scientific research institutions and medium and large IT enterprises.

2. Program Description

a) Capacity of both fundamental theories and systematic in-depth expertise knowledge in above discipline

b) Capability of conducting scientific research and technical work independently

3. Research Directions

- Signal and Information Processing
- Communication and Information System

- Telemetering and Information Network
- Microwave Technology and Its application
- Intelligent Information System
- Mobile Telecommunications System
- Internet of things and its Application
- Artificial Intelligence and Big Data

4. Application Requirements

(1) You have received the bachelor degree from the domestic and overseas universities or academic institutions accredited by the Ministry of Education.

(2) You have the ability to read and write academic papers and communicate in English.

5. Educational System and Duration

The master program is 3 years; the duration is minimum 2 years and no more than 5 years.

6. Credits and Courses

A master student must take at least 28 credits of courses, including 18 credits of required course of the degree and 10 credits of Non-required course of the degree.

信息与通信工程全英文留学硕士研究生课程设置

Courses for Master Students of Information and Communication Engineering

课程类别 Categories		课程编号 No	课程名称 Course	学时 Hours	学分 Credit	开课学期 Term	备注 Note
学位课程 19 学分 Required course of the degree course 19 Credits	公共课程 General Courses	2015LXS01	*汉语Ⅰ Chinese Language Ⅰ	32	2	秋 fall	必修 RequiredCourse
		2015LXS02	汉语Ⅱ Chinese Language Ⅱ	32	2	春 spring	
		2015LXS03	*中国概况 Introduction to China	32	2	秋 fall	
	学科基础课程 Discipline Basic Courses	2015JC08	矩阵论 Matrix Theory	48	3	秋 fall	
		2015JC04	最优化方法 Optimization Methods	32	2	秋 fall	
	专业基础课程 Major BasicCourses	2015CZ01	信息论与编码 Information Theory and Coding (Bilingual)	32	2	秋 fall	选修 4 学分 4 Credits at least
		2017JX01	通信网理论基础 Fundamentals of Communication Networks	32	2	秋 fall	
		2015JX03	现代数字信号处理 Modern Digital Signal Processing	32	2	秋 fall	
	专业课程 Major Courses	2015CZ02	现代通信技术 Modern Communication Technology	32	2	春 spring	选修 4 学分 4 Credits at least
		2015JX04	数字通信 Digital Communication	32	2	春 spring	
		2015CZ03	传感器网络技术 Sensor Networks Technology	32	2	春 spring	
		2015JX02	视频图像处理 Video Image Processing	32	2	秋 fall	
		2017CZ01	移动通信 Mobile Telecommunications	32	2	秋 fall	
		2017CZ02	智能计算 Intelligent Computing	32	2	秋 fall	
		2017CZ03	仿生视觉信息处理 Bionic Visual Information Processing	32	2	春 spring	
		2017JX02	信息论与编码 Information Theory and Coding	32	2	秋 fall	
非学位课程 9 学分 Non-required course of the degree 9 Credits		2015LXS05	跨学科选修 Interdisciplinary Elective 机器学习 Machine Learning ---------- **或（or）** ---------- 分布式计算 Distributed Computing ---------- **或（or）** ---------- 数据管理技术 Data Management Technology	32	2		必修 RequiredCourse
		2015LXS06	*综合素质课	16	1	春	

		Comprehensive Quality			spring	
	2015LXS07	科技论文写作 Academic Paper Writing	32	2	春 spring	
	2015JC26	计算机辅助设计 Computer-Aided Design	32	2	春 spring	选修 4 学分 4 Credits at least
	2017CZ04	图像处理与分析 Image Processing and Analysis	32	2	春 spring	
	2017CZ05	Matlab 编程 Matlab Programming	32	2	春 spring	
	2015JC25	程序设计方法 Method of Programming	32	2	秋 fall	
	2017CZ06	集成电路设计 IC manufacturing	32	2	春 spring	
教学环节 Academic Activities	学术活动 Seminar and Conferences					必修 Required Course
	科学研究 Scientific Research					
	文献阅读与综述 Literature Reading and Reviewing					

计算机科学与技术（0812）

学科门类：工学（08）一级学科：计算机科学与技术（0812）

一、专业描述

河海大学计算机科学与技术学科始于 1978 年开始招生的电子计算机及应用本科专业，1996 年获得计算机应用技术硕士学位授予权，同年被评为水利部重点学科，2000 年获得计算机科学与技术一级学科硕士点，2002 年被评为江苏省普通高校“青蓝工程”优秀学科梯队，2005 年获得计算机应用技术二级学科博士学位授予权，2009 年获计算机科学与技术博士后流动站。2010 年获得“计算机科学与技术”一级学科博士学位授予权。计算机科学与技术一级学科包含 3 个二级学科：计算机体系结构、计算机软件与理论、计算机应用。

近年来，计算机科学与技术学科紧密结合江苏软件强省建设和水利现代化建设的重大需求，依托河海大学优势学科平台建设，承接了国家“973”、“863”、自然科学基金等基础研究类项目，以及三峡工程管理系统、国家防汛抗旱指挥系统、数字黄河工程、水资源监控管理系统等一批重大工程的信息化建设项目，积极推进水利信息化工作，形成学科的优势与特色。

二、培养目标

在本门学科上掌握坚实的基础理论和系统的专门知识；具有从事科学研究工作或独立担负专门技术工作的能力。

三、研究方向

1、计算机系统结构（Computer Architecture）

2、计算机软件与理论（Computer Software and Theory）

3、计算机应用技术（Computer Application Technologies）

四、申请条件

1、已在我国认可的海内外高校或学术机构获得本科学位者。

2、能够用英语进行课程学习、阅读文献和进行学术写作，能够用英语进行日常交流。

五、培养年限

学术型硕士学制为 3 年，实行弹性学制，学习年限最短不低于 2 年，最长不超过 5 年。

六、学分要求和课程设置

本专业硕士留学研究生课程总学分为28学分，其中学位课程为18学分，非学位课程为 10 学分。另设教学环节。具体开设课程见附表。

Computer Science and Technology (0812)

Discipline: Engineering (08)

First-Class Discipline: Computer Science and Technology (0812)

1. Discipline Description

The discipline of Computer Science and Technology in Hohai University (hereinafter referred to as HHU-CS) started from 1978. It was authorized to offer Master and Doctorate degrees in the first-class discipline Computer Science and Technology in 2000 and 2010, respectively. HHU-CS was named as one of the key disciplines of the Ministry of Water Resources of the People's Republic of China in 1996 and one of the state-level characteristic disciplines in China in 2008. In 2009, a post-doctoral research station of Computer Science and Technology was established. As one of the first-class disciplines, Computer Science and Technology includes three second-level disciples: Computer Architecture, Computer Software and Theory, and Computer Application Technologies.

Recently, HHU-CS has undertaken many state-level projects such as the National Basic Research Program of China (973 Program), the National High-Tech Research and Development Program of China (863 Program), the National Key Technologies Research and Development Program of China and the National Natural Science Foundation of China, as well as the informatization of many major engineering projects, e.g. the Three Gorges Management System, the State Flood Control and Drought Relief Command System and the Digital Yellow River Project.

HHU-CS has 45 faculty and staff members. Adhering to the talents cultivation idea of "strengthening the foundation, attaching importance to practice and pursuing innovation", HHU-CS has established a complete cultivating system from undergraduates to doctoral candidates. In recent years, HHU-CS has published hundreds of high quality scientific articles in refereed journals and conference proceedings and received dozens of state-level awards and honors.

2. Program Description

(1) To have practical, realistic and scientific attitude, and to generate proper, meticulous

and honest academic atmosphere; to connect theory with practice; to be good at intensive study and teamwork.

(2) To thoroughly command fundamental theories and systemic professional knowledge of computer science and technology; to be able to perform scientific or engineering work independently.

(3) To completely understand the current situation and future trend of computer science and technology and the latest development of relevant research fields.

3. Research Directions

- Computer Architecture
- Computer Software and Theory
- Computer Application Technology

4. Application Requirements

(1) You have received the bachelor degree from the domestic and overseas universities or academic institutions accredited by the Ministry of Education.

(2) You have the ability to read and write academic papers and communicate in English.

5. Educational System and Duration

The master program is 3 years; the duration is minimum 2 years and no more than 5 years.

6. Credits and Courses

A master student must take at least 28 credits of courses, including 18 credits of required course of the degree and 10 credits of Non-required course of the degree.

计算机科学与技术全英文留学硕士研究生课程设置

Courses for Master Students of Computer Science and Technology

课程类别 Categories		课程编号 Course No	课程名称 Course Name	学时 Hours	学分 Credits	开课学期 Term	备注 Note
学位课 18 学分 Required course of the degree 18 Credits	公共课程 General Courses	2015LXS01	*汉语 I Chinese Language I	32	2	秋 fall	必修课 Required Course
		2015LXS02	汉语 II Chinese Language II	32	2	春 spring	
		2015LXS03	*中国概况 Introduction to China	32	2	秋 fall	
	专业基础课程 Major BasicCourses	2017JX03	高级程序设计 Advanced Computer Programming	32	2	秋 fall	必修课 Required Course
		2017JX04	算法设计与分析 Design and Analysis of Algorithms	32	2	春 spring	
		2017JX05	数理逻辑 Mathematical Logic	32	2	秋 fall	
	专业课程 Major Courses	2017JX06	Java 程序设计 Java Programming	32	2	秋 fall	选修 6 学分 6 Credits at least
		2017JX07	分布式计算 Distributed Computing	32	2	秋 fall	
		2017JX08	机器学习 Machine Learning	32	2	秋 fall	
		2017JX09	软件测试技术 Software Testing	32	2	春 spring	
		2017JX10	网络与信息安全 Network and Information Security	32	2	春 spring	
		2015JC26	计算机辅助设计 Computer-Aided Design	32	2	春 spring	
非学位课程 10 学分 Non-required course of the degree course 10 Credits		2015LXS05	*跨学科选修 Interdisciplinary Elective	32	2		必修课 Required Course
		2015LXS07	科技论文写作 Academic Paper Writing	32	2		
		2015JX01	数据管理技术 Data Management Technology	32	2	秋 fall	选修 6 学分 6 Credits at least
		2017JX11	数字图像处理 Digital Image Processing	32	2	秋 fall	
		2017JX12	信息检索 Information Retrieval	32	2	秋 fall	
		2017JX13	人工智能 Artificial Intelligence	32	2	春 spring	
		2017JX14	软件复用技术 Software Reuse	32	2	春 spring	
		2017JX15	多媒体技术 Multimedia Technology	32	2	春 spring	
		2017JX16	模型检验 Model Checking	32	2	秋 fall	
教学环节 Academic Activities		学术活动 Seminar and Conferences					必修 Required Course
		科学研究 Scientific Research					
		文献阅读与综述 Literature Reading and Reviewing					

土木工程（0814）

学科门类：工学（08）一级学科：土木工程（0814）

一、专业描述

土木工程是一门关于基础建设的规划、建造和维护的学科。土木工程学科的特点是：以数学、力学、地质学和工程科学为基础，解决基础建设中的实际问题，强调科学素养和工程专业知识的综合运用。土木工程在大型基础设施建设如水利工程、城市建设、铁路公路、港口航道等工程领域具有广泛的应用。

河海大学土木工程学科是为江苏省一级重点学科，学科从属于土木与交通学院，前身可以追溯到 1922 年河海工程专门学校设立的“结构部”和“路工学部”。含岩土工程、结构工程、防灾减灾工程及防护工程、桥梁与隧道工程等四个二级学科。其中岩土工程学科于 1988 年被评为国家级重点学科（全国仅有两个）。以土木工程学科为依托，建立了岩土力学与堤坝工程教育部重点实验室、教育部国家外专局“堤坝工程安全与减灾学科创新引智基地”、江苏省岩土工程技术工程研究中心、江苏省建筑物裂缝控制工程技术研究中心、江苏省钢结构工程技术研究中心等平台。土木工程学科目前有近百名教学科研人员，其中包括 17 名教授，31 名博导。近年来承担国家“973”、“863”计划课题、国家科技支撑计划、国家自然基金重点与面上项目及重大工程科技项目等 200 多项，承接科研经费超过 1.6 亿元，获国家科技进步一等奖、二等奖、国家技术发明二等奖及省部级科学技术奖 50 多项。

二、培养目标

土木工程专业硕士生的培养目标为：培养从事铁路、公路、水利等工程和堤坝、房屋、桥梁、隧道、边坡、地下工程研究工作的高层次人才。毕业生应具有一定的数学、力学、地质学理论基础、系统的工程专业知识，和对复杂工程问题建模分析的能力，能较熟练的运用现代基础理论和先进的计算方法及实验技术手段开展科学研究，能够从事大型复杂工程的技术开发以及高等院校和研究机构的教学科研工作。学生将在导师的指导下，结合导师的研究课题，掌握土木工程领域的基础知识，了解新问题与新进展，鼓励学生应用获得的知识和技能解决实际问题的能力。

三、研究方向

1. 岩土工程
2. 结构工程
3. 桥梁与隧道工程
4. 防灾与减灾工程

四、申请条件

土木工程全英文专业硕士生申请人需要满足以下条件:

1、已在我国认可的海内外高校或学术机构获得本科学位者。

2、能够用英语进行课程学习、阅读文献和进行学术写作，能够用英语进行日常交流。

五、培养年限

学术型硕士学制为 3 年，实行弹性学制，学习年限最短不低于 2 年，最长不超过 5 年。

六、学分要求和课程设置

本专业硕士留学研究生课程总学分为28学分，其中学位课程为19学分，非学位课程为9学分。另设教学环节。硕士生还必须结合研究课题完成一篇硕士论文，并通过答辩。土木工程专业硕士课程设置如下表。

Civil Engineering (0814）

Discipline: Engineering (08)

First-Class Discipline: Civil Engineering (0814）

1. Discipline Description

Civil Engineering is a discipline of planning, designing, constructing and maintaining infrastructures. Civil Engineering is based on Mathematics, Mechanics, Geology and other Engineering principles, and is devoted to solutions of problems arising from engineering practices on infrastructures. Civil Engineering highlights the combination of scientific qualities of engineers and comprehensive implementation of professional engineering knowledge. Civil Engineering is widely used in mega-infrastructures, such as hydraulic engineering, city construction, railway and highway engineering, harbor and waterway engineering, etc.

Civil Engineering in Hohai University is a key discipline of Jiangsu Province, and is accommodated in College of Civil and Transportation Engineering (CCTE). CCTE is developed from Department of Structural Engineering and Department of Highway Engineering in Hohai Polytechnic back to 1922. CCTE currently consists of Department of Geotechnical Engineering, Structural Engineering, Disaster Prevention and Mitigation Engineering, as well as Bridge and Tunneling Engineering, etc. Geotechnical Engineering in CCTE was awarded as national key discipline in 1988. Based on Civil Engineering discipline, CCTE has founded Key Laboratory of Geomechanics and Embankment Engineering under Ministry of Education, Research center of Geotechnical Engineering of Jiangsu Province, Research center of building crack control technology of Jiangsu Province, as well as Research center of steel structure engineering technology of Jiangsu Province, etc. Currently Civil Engineering discipline has around 100 research faculty and staff members, including 17 professors and 31 famous PhD supervisors. Over the last few years, they have undertaken more than 200 research projects, including the topics funded by “973”, “863” programs and National key technology support program, and priority/general/major research projects funded by the National Natural Science Foundation of China (NSFC). The total research funding exceeds RMB 0.16 billion Yuan. They have won more than 50 awards, including the first and second class prizes of National Science and Technology (S&T) Progress Awards, the second prizes of National Technological Invention Awards, and Provincial and Ministerial S&T Awards.

2. Program Description

The program in Civil Engineering aims at nurturing high-level professional individuals working on railway, highway and hydraulic engineering, and on embankment, structure, bridge, tunnel, slope as well as underground engineering. The students should be capable of (1) understanding fundamental knowledge in the theory of Mathematics, Mechanics, Geology, and systematic engineering professions; (2) modeling and analyzing complex technical problems; (3) using fundamental theory, advanced computational methods and experimental techniques to conduct research; and (4) undertaking R&D positions in large complex projects; and (5) excelling in education and research in universities and research institutes.

The program is designed to provide students with an intellectual environment to explore the knowledge and principles in Civil Engineering through research projects under the guidance of supervisors. Through the program, students have opportunities to develop their problem-solving ability with new knowledge and skills.

3. Research Directions

- Geotechnical Engineering
- Structure Engineering
- Bridge and Tunnel Engineering
- Disaster Prevention and Mitigation Engineering

4. Application Requirements

(1) You have received the bachelor degree from the domestic and overseas universities or academic institutions accredited by the Ministry of Education.

(2) You have the ability to read and write academic papers and communicate in English.

5. Educational System and Duration

The master program is 3 years; the duration is minimum 2 years and no more than 5 years.

6. Credits and Courses

A master student must take at least 28 credits of courses, including 19 credits of required course of the degree and 9 credits of Non-required course of the degree. A dissertation of the research subject and an oral defense are also required. Module structure of the doctorate program of Civil Engineering is listed below.

土木工程全英文留学硕士研究生课程设置

Courses for Master Students of Civil Engineering

课程类别 Categories		课程编号 No	课程名称 Course	学时 Hours	学分 Credit	开课学期 Term	备注 Note
学位课程 19 学分 Required course of thedegree 19 Credits	公共课程 General Courses	2015LXS01	*汉语Ⅰ Chinese Language Ⅰ	32	2	秋 fall	必修 RequiredCourse
		2015LXS02	汉语Ⅱ Chinese Language Ⅱ	32	2	春 spring	
		2015LXS03	*中国概况 Introduction to China	32	2	秋 fall	
	学科基础课程 Discipline Basic Courses	2015JC03	数值分析 Numerical Analysis	48	3	秋 fall	
		2015JC01	数学物理方程 Partial Differential Equations	32	2	秋 fall	
	专业基础课程 Major BasicCourses	2015JC09	弹性力学 Elastic Mechanics	32	2	春 spring	必修 RequiredCourse
		2015LC04	流体力学 Fluid Mechanics	32	2	春 spring	
	专业课程 Major Courses	2015TM02	高等岩土力学 Advanced Soil and Rock Mechanics	64	4	春 spring	选修 4 学分 4 credits at least
		2015TM06	基础工程分析 Foundation Analysis	32	2	春 spring	
		2015TM07	结构试验与量测技术 Structure Test and Monitoring Technique	32	2	春 spring	
非学位课程 9 学分 Non-required course of the degree course 9Credits		2015LXS05	*跨学科选修 A Course in other disciplines	32	2	春 spring	必修 RequiredCourse
		2015LXS06	*综合素质课 Comprehensive Quality	16	1	春 spring	
		2015TM08	渗流理论与测试 Seepage Theory and Test	32	2	春 spring	选修 6 学分 6Credits at least
		2015TM09	有限元法 Finite Element Method	32	2	春 spring	
		2015TM10	大跨度空间结构 Long Spam Space Structure	32	2	春 spring	
		2015LC05	塑性力学 Plasticity Mechanics	32	2	春 spring	
		2015TM04	岩土工程风险与可靠性分析 Risk and Reliability in Geotechnical Engineering	32	2	春 spring	
		2015LXS07	英文科技写作 The Art of Scientific Presentation and Writing in English	32	2	秋、春 spring, fall	
教学环节 Academic Activities		学术活动 Seminar and Conferences					必修 Required Course
		科学研究 Scientific Research					
		文献阅读与综述 Literature Reading and Reviewing					

水文学及水资源（081501）

学科门类：工学（08）一级学科：水利工程（0815）

一、专业描述

水文学及水资源专业主要研究地球上水的形成、分布和运动规律，以及水旱灾害防治、水资源开发利用、水环境改善与保护和水利工程运行与管理的基本理论与技术方法。它既有基础科学的本质，又有应用科学的内涵，是水利学科的重要组成部分。在人类认识自然、适应自然和改造自然的实践中，水文学及水资源学科具有极其重要的作用。

1952 年，著名水文学家刘光文教授等在华东水利学院（河海大学前身）创建了我国第一个水文学及水资源学科。1981 年首批获得学士、硕士和博士学位授予权，1988、2002、2007 年连续三次被批准为国家重点学科（全国唯一），1990 年获得世行重点学科建设项目的资助，1993 年建成水资源开发利用国家专业实验室，1996 年列入“211 工程”重点学科建设项目，1997 年联合国教科文组织通过专门议案，在我校设立国际水文水资源及环境培训与研究中心，2001 年批准设立水资源开发教育部重点实验室，并列入“十五”“211 工程”重点学科建设项目，2004 年批准设立水文水资源与水利工程科学国家重点实验室。2005 年获批建设水资源高效利用与工程安全国家工程研究中心。

河海大学水文学及水资源学科具有十分显著的优势：学科特色显著、学科梯队完整、学科平台基础雄厚。在 2002 年教育部组织的学科评审中，本学科综合实力再次位居全国第一。水文学及水资源学科具有一支理论基础深厚、

实践经验丰富的学术带头人和学术骨干队伍，现有教学和科研人员 60 多人，其中教授 30 多人，副教授 21 人，85%的教师具有博士学位。围绕“水文特色，国际一流”建设目标，自“十一五”以来，本学科主持与承担了 766 项科研项目，经费总额 3.38 亿元，发表论文 2200 余篇，出版著作和教材 50 余部，获部省级以上科技奖 44 项，其中国家科技奖 2 项。河海大学水文学及水资源学科还接受联合国教科文组织（UNESCO）和世界气象组织（WMO）的委托，为 30 多个国家培养近 200 多名高级水文水资源及水环境人才。

二、培养目标

水文学及水资源专业全英文学术型硕士培养目标为：培养适应经济社会发展需要，在水文学及水资源学科领域内掌握坚实的基础理论和系统的专门知识，了解水文科学的现状和发展趋势，具备良好的国际视野、诚信的学术作风、积极的团队合作精神，具有从事科学研究工作或独立担负专门技术工作的能力，能够有效应用计算机开展科学研究和英语进行学术交流，了解中国文化并初步具备汉语日常交流能力的高层次学术型人才。

为学生提供良好的学术环境，使学生在导师的指导下，探索水循环及水资源演变机理，通过结合研究课题，应用获得的知识和技能解决实际问题，培养从事科学研究的能力。

三、研究方向

水文学及水资源专业全英文学术型硕士培养计划包括（但不限于）以下研究方向：

1. 水文物理规律模拟及水文预报；

2. 水文不确定性理论与应用；

3. 水资源系统规划及可持续利用；

4. 地下水系统理论与调控；

5. 水信息理论与技术；

6. 生态水文与环境水文；

7. 应用水文气象。

四、申请条件

水文学及水资源全英文专业硕士生申请人需要满足以下条件:

1、已在我国认可的海内外高校或学术机构获得本科学位者。

2、能够用英语进行课程学习、阅读文献和进行学术写作，能够用英语进行日常交流。

五、培养年限

学术型硕士学制为 3 年，实行弹性学制，学习年限最短不低于 2 年，最长不超过 5 年。

六、学分要求和课程设置

本专业硕士留学研究生课程总学分为28学分，其中学位课程为18学分，非学位课程为 10 学分。另设教学环节。硕士生还必须结合研究课题完成一篇硕士论文，并通过答辩。水文学及水资源专业硕士课程设置如下表。

Hydrology and Water Resources（081501）

Discipline：Engineering（08）

First-Class Discipline：Hydraulic Engineering（0815）

1. Discipline Description

Hydrology and water resources is a discipline that mainly studies the formation, distribution and movement of water on the earth. It also studies the fundamental theory and techniques on flood/drought prevention, water resources development and utilization, aquatic environment protection and, hydraulic project operation and management. As an important branch of the discipline of hydraulic engineering, hydrology and water resources has the nature of both basic science and applied science. The discipline of hydrology and water resources plays an important role in the practices of understanding, adapting to transforming the nature.

The first discipline of hydrology and water resources in China was founded at East China Technical University of Water Resources (the former Hohai University) in 1952 by Prof. Liu Guangwen, a renowned hydrological scientist. The discipline was qualified for granting bachelor, master and doctoral degree in 1981, and was authorized as national key discipline in 1988, 2002 and 2007. In 1990, it was funded by World Bank's Key Discipline Development Program. National Specialized Laboratory of Water Resources Development and Utilization was founded in 1993. In 1996 the discipline of Hydrology and Water Resources was sponsored by the Key Discipline Construction Program of "211" Project. In 1997, UNESCO established the International Training and Research Center for Hydrology-Water Resources and Environment at Hohai University. In 2001, the Ministry of Education's Key Laboratory of Water Resources Development was established in Hohai University, and in the same year the discipline of hydrology and water resources was enrolled in the Key Discipline Construction Program under the sponsor of the Tenth Five-Year National Plan and "211" Project. In 2004 and 2005, State Key Laboratory of Hydrology-Water Resources and Hydraulic Engineering Sciences and National Engineering Research Center of Water Resources Efficient Utilization and Engineering Safety were founded respectively.

The discipline of hydrology and water resources has significant advantages with distinctive

academic characteristics, a comprehensive academic team and solid academic foundation. According to the evaluation by the Ministry of Education in 2002, the discipline was ranked as the top best in China. The discipline of Hydrology and Water Resources has several renowned academic leaders and a team of academic cadre with solid theoretical foundation and rich academic experiences. Currently the discipline has 60 faculties including over 30 professors and 21 associate professors. 85% of who has the doctor's degree. Since the Eleventh Five-Year National Plan, the discipline has undertaken 766 research projects with total funds of 338 million Yuan, and published 2200 papers and over 50 academic and course books. In addition, the discipline received 44 prizes, including 2 National Prizes for Progress in Science and Technology. Authorized by UNESCO and WMO, the discipline of hydrology and water resources has trained more than 200 senior talents of hydrology, water resources and water environment.

2. Program Description

The program in Hydrology and Water Resources aims at cultivating high-level academic individuals with comprehensive fundamental knowledge and theory of hydrology and water resources, who are capable of getting insight into the status and development trend of hydrological science, and have good international visions, honest and team-work spirits. The program also aims at training high-level researchers who know about Chinese culture, are able to use the Chinese language for daily communication, and have the ability of using computers and English to carry out scientific research and academic exchange.

The program is designed to provide students with an intellectual environment to explore the knowledge and principles in hydrology and water resources through research project under guidance of an experienced supervisor. Through the program, students have opportunities to develop their problem-solving ability with new knowledge and skills, and to make their own contributions to their research field.

3. Research Directions

- The PhD program in Hydrology and Water Resources is mainly oriented (but not limited) to the following research areas:
- Watershed hydrological simulation and forecasting

- Theory of hydrological uncertainty and application
- Water resources planning and management
- Numerical simulation and utilization of groundwater
- Theory and techniques of hydroinformatics
- Ecohydrology and environmental hydrology
- Applied hydrometeorology

4. Application Requirements

(1) You have received the bachelor degree from the domestic and overseas universities or academic institutions accredited by the Ministry of Education.

(2) You have the ability to read and write academic papers and communicate in English.

5. Educational System and Duration

The master program is 3 years; the duration is minimum 2 years and no more than 5 years.

6. Credits and Courses

A master student must take at least 28 credits of courses, including 18 credits of required course of the degree and 10 credits of Non-required course of the degree. A dissertation of the research subject and an oral defense are also required. Module structure of the doctorate program of Hydrology and Water Resources is listed below.

水文学及水资源全英文留学硕士研究生课程设置

Courses for Master Students of Hydrology and Water Resources

课程类 Categories		课程编号 No	课程名称 Course	学时 Hours	学分 Credit	开课学期 Term	备注 Note
学位课程 19 学分 Required course of the degree 19 Credits	公共课程 General Courses	2015LXS01	*汉语Ⅰ Chinese Language Ⅰ	32	2	秋 fall	必修 RequiredCourse
		2015LXS02	汉语Ⅱ Chinese Language Ⅱ	32	2	春 spring	
		2015LXS03	*中国概况 Introduction to China	32	2	秋 fall	
	学科基础课程 Discipline Basic Courses	2015JC03	数值分析 Numerical Analysis	48	3	秋 Fall	选修 6 学分 6Credits at least
		2015JC04	最优化方法 Optimization Methods	32	2	秋 Fall	
		2015JC01	数学物理方程 Partial Differential Equations	32	2	春 Spring	
		2015JC02	应用数学 Applied Mathematics	72	4	春 Spring	
	专业课程 Major Courses	2015SW04	地下水数值模拟 Numerical Simulation of Groundwater	18	1	春 Spring	必修 RequiredCourse
		2015SW05	环境水力学 Environmental Hydraulics	32	2	春 Spring	
	专业基础课程 Major BasicCourses	2015SW06	现代水文模拟及预报 Modern Hydrological Modeling and Forecasting	32	2	春 Spring	必修 RequiredCourse
		2015SW07	水资源规划与管理 Water Resources Planning and Management	32	2	春 Spring	
非学位课程 9 学分 Non-required course of the degree 9 Credits		2015LXS05	跨学科选修 A course in other disciplines	32	2		必修 RequiredCourse
		2015LXS06	综合素质课 Comprehensive Quality	18	1		
		2015SW08	水信息采集与处理 Collection of Water Information and Data Processing	32	3	春 Spring	必修 RequiredCourse
		2015SW09	水环境数学模型 Mathematic Model of Water Environment	32	2	春 Spring	
		2015LXS07	英文科技写作 The Art of Scientific Presentation and Writing in English	32	2		
教学环节 Academic Activities		学术活动 Seminar and Conferences					必修 Required Course
		科学研究 Scientific Research					
		文献阅读与综述 Literature Reading and Reviewing					

水力学及河流动力学（081502）

学科门类：工学（08）一级学科：水利工程（0815）

一、专业描述

河海大学水力学及河流动力学学科 1981 年首批获得硕士、博士学位授予权，1990 年建立博士后流动站，1994 年成为首批江苏省重点学科，2007 年成为国家二级重点学科，也是国家“211 工程”重点建设学科，水资源高效利用与工程安全国家工程研究中心和水文水资源与水利工程科学国家重点实验室是该学科研究支撑平台。

多年来，结合我国重大水利工程建设和河流开发利用的实践，本学科在水工水力学、生态环境水力学和平原河网水动力学研究方面具有明显优势和学科特色。研究领域主要包括工程水力学、泥沙工程与河流管理、水利信息技术、工程渗流及地下水环境、现代流体测试技术等方面，研究成果在我国河流治理、水力发电、水运、给排水、环境生态水利、水土保持等领域得到了广泛应用。

二、培养目标

本学科旨在培养本学科领域的高级专门人才，在本门学科上掌握坚实的基础理论、系统的专门知识及必要的工程实践技能；具有从事科学研究工作或独立担负专门技术工作的能力。了解学科研究的前沿动态和发展趋势，能熟练阅读本专业的英文文献资料，具有扎实的外文写作能力和较强的国际学术交流能力；熟练应用相关基础理论、先进的计算方法和实验技术解决专门

技术问题和从事科学研究；毕业后能够胜任高等教学、科研、规划设计和管理等工作。

三、研究方向

1．河流管理与生态环境（River Management, Aquatic Ecology and Environment）

2．工程水力学理论与应用（Theory and Applications of Engineering Hydraulics）

3．水沙运动理论与工程应用（Flow, Sediment Transportation and It Application in River Engineering）

4．工程渗流及地下水环境（Engineering Seepage and Ground water Environment）

5．计算水力学及水信息技术（Computational Hydraulics and Hydro informatics）

四、申请条件

1. 已在我国认可的海内外高校或学术机构获得本科学位者。

2. 能够用英语进行课程学习、阅读文献和进行学术写作，能够用英语进行日常交流。

五、培养年限

学术型硕士学制为 3 年，实行弹性学制，学习年限为 2-5 年。

六、学分要求和课程设置

本专业硕士留学研究生课程总学分为28学分，其中学位课程为19学分，非学位课程为 9 学分。另设教学环节。具体开设课程见附表。

Hydraulics and River Dynamics（081502）

Discipline: Engineering (08)

First-Class Discipline: Water Conservancy (0815)

1. Discipline Description

The discipline of hydraulics and river dynamics of Hohai University in 1981 became the first batch of master's degree, doctoral degree grant, in 1990 established a postdoctoral station, in 1994 became the first batch of key disciplines in Jiangsu Province, in 2007 became the national key disciplines. Itis also the national "211 Project" key construction disciplines. “National Engineering Research Center of Water Resources Efficient Utilization and Engineering Safety” and “State Key Laboratory of Hydrology-Water Resources and Hydraulic Engineering” are the research support platform of this subject.

Over the years, combined with China's major water conservancy construction and river development and utilization of the practice, the discipline in the hydraulic hydraulics, ecological environment hydraulics and plain river hydrodynamics research has obvious advantages and advanced disciplines characteristics. The research areas include engineering hydraulics, sediment engineering and river management, water information technology, engineering infiltration flow and groundwater environment, modern fluid testing technology and so on. Research results have been widely used in China's river management, hydropower, water transportation, water supply and drainage, environmental ecological water conservancy, soil and water conservation and many other fields.

2. Program Description

The program aims to foster highly qualified specialists in the field of Hydraulics and River Dynamics with the consolidation of their basic theories, systematic professional knowledge and necessary engineering practice, and the development of their ability on scientific research and technological work. They should fully understand the frontier technology and development trend in this research field, read the English documents and papers frequently in this discipline and related fields, have a strong ability to write English documents and be active in the international academy communication. They are able to solve the technical problems and carry

out their research work with the proficient application of the fundamental theories, advanced computational methods and experimental technology, and then be fully qualified for the work on higher education, scientific research, planning, design and management.

3. Research Directions

- River Management, Aquatic Ecology and Environment
- Theory and Applications of Engineering Hydraulics
- Flow, Sediment Transportation and It Application in River Engineering
- Engineering Seepage and Ground water Environment
- Computational Hydraulics and Hydro informatics

4. Application Requirements

(1) You have received the bachelor degree from the domestic and overseas universities or academic institutions accredited by the Ministry of Education.

(2) You have the ability to read and write academic papers and communicate in English.

5. Educational System and Duration

The master program is 3 years; the duration is minimum 2 years and no more than 5 years.

6. Credits and Courses

A master student must take at least 28 credits of courses, including 19 credits of required course of the degree and 9 credits of Non-required course of the degree.

水力学及河流动力学全英文留学硕士研究生课程设置

Courses for Master Students of Hydraulics and River Dynamics

课程类别 Categories		课程编号 No	课程名称 Course	学时 Hours	学分 Credit	开课学期 Term	备注 Note
学位课程 19 学分 Required course of the degree Courses 19 Credits	公共课程 General Courses	2015LXS01	*汉语Ⅰ Chinese Language Ⅰ	32	2	秋 fall	必修 RequiredCourse
		2015LXS02	汉语Ⅱ Chinese Language Ⅱ	32	2	春 spring	
		2015LXS03	*中国概况 Introduction to China	32	2	秋 fall	
	学科基础课程 Discipline Basic Courses	2015JC03	数值分析 Numerical Analysis	48	3	秋 fall	选修 5 学分 5 Credits at least
		2015JC04	最优化方法 Optimization Methods	32	2	秋 fall	
		2015JC01	数学物理方程 Partial Differential Equations	32	2	春 spring	
	专业基础课程 Major BasicCoursess	2017SD01	河流动力学 River Mechanics	32	2	春 spring	必修 RequiredCourse
		2017SD06	工程紊流的数值模拟方法 Numerical Simulation Methods for Engineering Turbulence	32	2	秋 fall	
		2017SD07	工程水动力学及应用 Engineering Hydrodynamics and Applications	32	2	春 spring	
	专业课程 Major Courses	2017SD08	多孔介质中的水流与溶质运移 Flow and Transport in Porous Media	32	2	春 spring	必修 RequiredCourse
非学位课程 9 学分 Non-required course of the degree 9 Credits		2015LXS05	*跨学科选修 Interdisciplinary Elective	32	2		必修 Required Course
		2015LXS06	*综合素质课 Comprehensive Quality	16	1		
		2015JC26	计算机辅助设计 Computer-Aided Design	32	2	春 spring	
		2015JC25	程序设计方法 Methods of Programming	32	2	秋 fall	
		2015LXS07	英文科技写作 The Art of Scientific Presentation and Writing in English	32	2	秋、春 fall or spring	
教学环节 Academic Activities		学术活动 Seminar and Conferences					必修 RequiredCourse
		科学研究 Scientific Research					
		文献阅读与综述 Literature Reading and Reviewing					

水工结构工程（081503）

学科门类：工学（08）一级学科：水利工程（0815）

一、专业描述

河海大学水工结构工程学科创建于 1952 年，1981 年获硕士、博士学位授予权，1990 年建立博士后流动站，1996 年被确定为水利部重点学科，1997 年为成为国家“211 工程”重点建设学科，1999 年设立教育部长江学者奖励计划特聘教授岗位，2001 年被评为国家重点学科，同年成立教育部水利水电工程安全工程研究中心，2002 年成立了南京土工合成材料工程技术研究中心。

我校水工结构工程学科注重基础及应用基础研究，紧跟国际前沿，围绕国家重大需求，先后承担了国家自然科学基金、国家 973 计划、国家科技支撑计划、国家重点研发计划以及长江三峡、二滩、小湾、小浪底、锦屏、糯扎渡、南水北调等众多重大水利水电工程的科研课题，取得了大量科研成果及显著的社会和经济效益。

二、培养目标

本学科旨在培养本学科领域的高级专门人才。在本门学科上掌握坚实的基础理论和系统的专门知识；具有从事科学研究工作或独立担负专门技术工作的能力。能够熟练阅读本专业外文文献，具有较强的英文写作和国际学术交流能力。

三、研究方向

1. 高坝及坝基安全监控理论、方法和技术（Safety Monitoring Theories,

Methods and Techniques for High Dams and Their Foundations）

2. 坝工设计计算理论与试验技术（Computation Theories and Experimental Techniques for Dam Designs）
3. 高边坡及地下工程（High Slopes and Underground Engineering）
4. 大型水闸、船闸及输水结构（Sluices, Ship Locks and Water Transport Structures）
5. 水工混凝土新材料新工艺（Materials and Construction for Hydraulic Concrete Structures）

四、申请条件

1. 已在我国认可的海内外高校或学术机构获得本科学位者。

2. 能够用英语进行课程学习、阅读文献和进行学术写作，能够用英语进行日常交流。

五、培养年限

学术型硕士学制为 3 年，实行弹性学制，学习年限最短不低于 2 年，最长不超过 5 年。

六、学分要求和课程设置

本专业硕士留学研究生课程总学分为28学分，其中学位课程为19学分，非学位课程为 9 学分。另设教学环节。具体开设课程见附表。

Hydraulics Structure Engineering（081503）

Discipline: Engineering (08)

First-Class Discipline: Water Conservancy (0815)

1. Discipline Description

The discipline of Hydraulic Structure Engineering in Hohai University was founded in 1952.The discipline was qualified for awarding master and doctoral degree in 1981 and the post-doctor research workshop was established in 1990. In 1996, the discipline was awarded a key discipline of Ministry of Water Resources and was chosen as a key discipline of national "211 Project" in 1997.The set of "Cheung Kong Scholars Program" Distinguished Professor position of the Ministry of Education was approved in 1999.The discipline of hydraulic structure engineering was awarded a national key discipline in 2001,and safety engineering research center of water conservancy and hydropower engineering of the Ministry of Education was established in the same year. Nanjing geosynthetics engineering technology research center was set up in 2002.

The discipline of Hydraulic Structure Engineering has been focusing on basic and applied research, following closely the international development in this field and meeting the national strategic demand. Many high-level research missions were accomplished, such as National Natural Science Foundation of China, National 973 Program, National Science-Technology Support Program and National Key R & D Plan, as well as some major water conservancy and hydropower engineering research projects, for instance, Yangtze River Three Gorges, Ertan, Xiaowan, Xiaolangdi, Jinping, Nuozhaduhydropower station and South-to-North Water Diversion project. A large number of scientific research achievements and significant social and economic benefits were obtained.

2. Program Description

The program aims at cultivating advanced professional individuals in the fields of hydraulic structure engineering. The candidate should: 1) be equipped with comprehensive fundamental knowledge and theory in this discipline; 2) be capable of doing research work or undertaking expertise work independently in the scientific research; 3) read the English

documents and papers in this discipline and related fields, write English documents and be active in the international academy communication.

3. Research Directions

- Safety Monitoring Theories, Methods and Techniques for High Dams and Their Foundations
- Computation Theories and Experimental Techniques for Dam Designs
- High Slopes and Underground Engineering
- Sluices, Ship Locks and Water Transport Structures
- Materials and Construction for Hydraulic Concrete Structures

4. Application Requirement

(1) You have received the bachelor degree from the domestic and overseas universities or academic institutions accredited by the Ministry of Education.

(2) You have the ability to read and write academic papers and communicate in English.

5. Educational System and Duration

The master program is 3 years; the duration is minimum 2 years and no more than 5 years.

6. Credits and Courses

A masterstudent must take at least 28 credits of courses, including 19 credits of required course of the degree and 9 credits of Non-required course of the degree.

水工结构工程全英文留学硕士研究生课程设置

Courses for Master Students of Hydraulics Structure Engineering

课程类别 Categories		课程编号 No	课程名称 Course	学时 Hours	学分 Credit	开课学期 Term	备注 Note
学位课程 19 学分 Required course of the degree 19 Credits	公共课程 General Courses	2015LXS01	*汉语Ⅰ Chinese Language Ⅰ	32	2	秋 fall	必修 RequiredCourse
		2015LXS02	汉语Ⅱ Chinese Language Ⅱ	32	2	春 spring	
		2015LXS03	中国概况 Introduction to China	32	2	秋 fall	
	学科基础课程 Discipline Basic Courses	2015JC03	数值分析 Numerical Analysis	48	3	秋 fall	选修 5 学分 5 Credits at least
		2015JC04	最优化方法 Optimization Methods	32	2	秋 fall	
		2015JC01	数学物理方程 Partial Differential Equations	32	2	春 spring	
	专业基础课程 Major BasicCourses	2017SD09	水工结构有限元分析 Finite Element Method For Hydraulic Structure	64	4	秋 fall	选修 6 学分 6 Credits at least
		2015JC09	弹性力学 Elastic Mechanics	32	2	秋 fall n	
		2015LC05	塑性力学 Plastic Mechanics	32	2	春 spring	
	专业课程 Major Courses	2017SD02	高等水工结构学 Advanced Hydraulic Structure	32	2	春 spring	选修 2 学分 2 Credits at least
		2017SD10	大坝安全监控理论与应用 Dam Safety Monitoring Theory and Its Application	32	2	春 spring	
		2017SD11	地下工程与边坡稳定 Underground Engineering and Slope Stability	32	2	春 spring	
		2017SD03	工程渗流分析与控制 Seepage Analysis and Controlling Engineering	32	2	春 spring	
		2017SD12	水利工程施工新技术 New Construction Technology of Hydraulic Engineering	32	2	秋 fall	
		2017SD05	土石坝地震工程 Earth Rock Earthquake Engineering	32	2	春 spring	
非学位课程 9 学分 Non-required course of the degree 9 Credits		2015LXS05	*跨学科选修 Interdisciplinary Elective	32	2		必修 RequiredCourse
		2015LXS06	*综合素质课 Comprehensive Quality	16	1		
		2015JC25	程序设计方法 Methods of Programming	32	2	秋 fall	
		2015JC26	计算机辅助设计 Computer-Aided Design	32	2	春 spring	
		2015LXS07	英文科技写作 The Art of Scientific Presentation and Writing in English	32	2	秋、春 fall or spring	
教学环节 Academic Activities		学术活动 Seminar and Conferences					必修 RequiredCourse
		科学研究 Scientific Research					
		文献阅读与综述 Literature Reading and Reviewing					

水利水电工程（081504）

学科门类：工学（08）　　一级学科：水利工程（0815）

一、专业描述

河海大学水利水电工程学科创建于 1952 年，1984 年取得硕士学位授予权，1993 年取得博士学位授予权，1996 年被评为水利部重点学科，2007 年成为国家二级重点学科，也是国家“211 工程”重点建设学科，水文水资源与水利工程科学国家重点实验室和水资源高效利用与工程安全国家工程研究中心是该学科研究的主要支撑平台。学科现有 10 余名博士生导师，近 20 名硕士生导师，另有近 10 名校外兼职博导。

本学科以我国大型水电站、泵站、抽水蓄能电站和潮汐电站，以及风力发电等新能源为主要研究对象，着重研究和解决水利水电工程以及新能源的规划、设计理论及关键技术，注重源头创新和均衡发展，为水利水电和新能源建设做出了重要贡献。本学科积极推进优势学科创新平台建设，承担了多项“973”项目、“863”项目、国家自然科学基金项目等部省级重大科技项目，以及各类科研项目，在理论研究和工程应用等方面取得了多项创新性研究成果。

二、培养目标

本学科旨在培养本学科领域的高级专门人才，在本门学科上掌握坚实的基础理论、系统的专门知识及必要的工程实践技能；具有从事科学研究工作或独立担负专门技术工作的能力。了解学科研究的前沿动态和发展趋势，能熟练阅读本专业的英文文献资料，具有扎实的外文写作能力和较强的国际学术交流能力；熟练应用相关基础理论、先进的计算方法和实验技术解决专门技术问题和从事科学研究；毕业后能够胜任高等教学、科研、规划设计和管理等工作。

三、研究方向

1、 水利水电系统规划与工程经济（Water Resources & Hydropower System Planning and Engineering Economy）

2、 水电站、泵站和抽水蓄能电站水力学（Hydraulics of Hydropower Station, Pump Station and Pumped-Storage Power Station）

3、 水电站和泵站结构（Structure of Hydropower Station and Pump Station）

4、 水力机组过渡过程控制与仿真（Hydraulic Transient Control and Simulation of Hydraulic Unit）

5、 抽水蓄能及新能源技术（Technique of Pumped-Storage Project and Renewable Energy）

四、申请条件

1. 已在我国认可的海内外高校或学术机构获得本科学位者。

2. 能够用英语进行课程学习、阅读文献和进行学术写作，能够用英语进行日常交流。

五、培养年限

学术型硕士学制为3年，实行弹性学制，学习年限最短不低于2年，最长不超过5年。

六、学分要求和课程设置

本专业硕士留学研究生课程总学分为28学分，其中学位课程为19学分，非学位课程为9学分。另设教学环节。具体开设课程见附表。

Water Conservancy and Hydropower Engineering（081504）

Discipline: Engineering (08)

First-Class Discipline: Water Conservancy (0815)

1. Discipline Description

The discipline of Water Conservancy and Hydropower Engineering at Hohai University was founded in 1952. This discipline was granted the right to award Master degree in 1984. In 1993, the right to award Ph. Doctor Degree was granted to this discipline and the post-doctor research workshop was established. In 1996, this discipline was awarded the key discipline of the Ministry of Water resources of the People's Republic of China and granted as the National Level 2 Key Discipline in 2007. This discipline is also the key built discipline in the "Project 211". The support platforms for scientific research mainly include the State Key Laboratory of Hydrology-water Resources and Hydraulic engineering, and the National Engineering Research Center of Water Resources Efficient Utilization and Engineering Safety. In this discipline, there are more than 10 supervisors for Ph. D., nearly 20 supervisors for Master Degree, and about 10 off campus part-time supervisors for Ph. D.

All the research works in this discipline mainly focus on the large hydropower stations, the pumping stations, the pumped-storage power stations, the tide hydropower stations and the wind power etc., aim to investigate and solve the key technology problems in these hydraulic projects including energy planning, design theories, operation control etc., and emphasize the innovative and original research at the premise of balanced development. All the achievement has given great contribution for the development of waterpower engineering and new energy in the world. This discipline actively promotes the projects Funded by the Priority Academic Program Development, and undertakes "973" projects, "863" projects, the projects from the National Natural Science Foundation of China and other research works, and has gained many innovative research achievements in basic theories and engineering application.

2. Program Description

The program aims to foster highly qualified specialists in the field of Water Conservancy and Hydropower Engineering with the consolidation of their basic theories, systematic professional knowledge and necessary engineering practice, and the development of their ability on scientific research and technological work. They should fully understand the frontier technology and development trend in this research field, read the English documents and papers frequently in this discipline and related fields, have

a strong ability to write English documents and be active in the international academy communication. They are able to solve the technical problems and carry out their research work with the proficient application of the fundamental theories, advanced computational methods and experimental technology, and then be fully qualified for the work on higher education, scientific research, planning, design and management.

3. Research Directions

- Water Resources & Hydropower System Planning and Engineering Economy
- Hydraulics of Hydropower Station, Pump Station and Pumped-Storage Power Station
- Structure of Hydropower Station and Pump Station
- Hydraulic Transient Control and Simulation of Hydraulic Unit
- Technique of Pumped-Storage Project and Renewable Energy

4. Application Requirements

(1) You have received the bachelor degree from the domestic and overseas universities or academic institutions accredited by the Ministry of Education.

(2) You have the ability to read and write academic papers and communicate in English.

5. Educational System and Duration

The master program is 3 years; the duration is minimum 2 years and no more than 5 years.

6. Credits and Courses

A master student must take at least 28 credits of courses, including 19 credits of required course of the degree and 9 credits of Non-required course of the degree.

水利水电工程全英文留学硕士研究生课程设置

Courses for Master Students of Water Conservancy and Hydropower Engineering

课程类别 Categories		课程编号 No	课程名称 Course	学时 Hours	学分 Credit	开课学期 Term	备注 Note
学位课程 19 学分 Required course of the degree 19 Credits	公共课程 General Courses	2015LXS01	*汉语Ⅰ Chinese Language Ⅰ	32	2	秋 fall	必修 RequiredCourse
		2015LXS02	汉语Ⅱ Chinese Language Ⅱ	32	2	春 spring	
		2015LXS03	*中国概况 Introduction to China	32	2	秋 fall	
	学科基础课程 Discipline Basic Courses	2015JC03	数值分析 Numerical Analysis	48	3	秋 fall	选修 5 学分 5 Credits at least
		2015JC04	最优化方法 Optimization Methods	32	2	秋 fall	
		2015JC01	数学物理方程 Partial Differential Equations	32	2	春 spring	
	专业基础课程 Major BasicCourses	2015SD07	水利水电系统规划 Water and Hydropower System Planning	32	2	春 spring	选修 6 学分 6 Credits at least
		2015SD08	多目标决策理论及方法 Theory of Multi-Objective Decision-making	32	2	春 spring	
		2015SD09	水力发电工程 Hydroelectric Engineering	32	2	春 spring	
		2015SD10	瞬变流(一) Fluid Transients I	32	2	春 spring	
	专业课程 Major Courses	2015SD11	风力和潮汐发电技术 Wind Power and Tidal Power	32	2	秋 fall	选修 2 学分 2Credits at least
		2015SD13	抽水蓄能技术 Pumped－Storage Technology	32	2	春 spring	
非学位课程 9 学分 Non-required course of the degree 9 Credits		2015LXS05	*跨学科选修 Interdisciplinary Elective	32	2		必修 RequiredCourse
		2015LXS06	*综合素质课 Comprehensive Quality	16	1		
		2015JC26	计算机辅助设计 Computer-Aided Design	32	2	春 spring	
		2015JC25	程序设计方法 Methods of Programming	32	2	秋 fall	
		2015LXS07	英文科技写作 The Art of Scientific Presentation and Writing in English	32	2	秋、春 fall or spring	
教学环节 Academic Activities		学术活动 Seminar and Conferences					必修 RequiredCourse
		科学研究 Scientific Research					
		文献阅读与综述 Literature Reading and Reviewing					

港口、海岸及近海工程(081505)

学科门类：工学（08）　一级学科：水利工程（0815）

一、专业描述

港口、海岸及近海工程学科始建于 1952 年，1981 年海岸工程专业成为全国首批博士学位授权点，1988 年近海工程专业成为硕士学位授权点，1990 年港口航道工程专业成为全国首个博士学位授权点，2007 年港口、海岸及近海工程学科被评为国家重点学科，是国家“211 工程”、“全球水循环与国家水安全”985 优势学科创新平台重点建设学科。所在的一级学科水利工程在 2009 年和 2012 年全国学科评比中获得第一名。

本学科目前拥有水文水资源与水利工程科学国家重点实验室和水资源高效利用与工程安全国家工程研究中心。现有“青年千人”、双聘院士、“教育部新世纪优秀人才”、“江苏省 333 高层次人才”等十余名领军人才。围绕“港航特色，国际一流”建设目标，“十一五”以来，本学科主持与承担了 624 项科研项目，经费总额 2.39 亿元，发表论文 800 余篇，出版著作和教材 30 余部，获部省级以上科技奖 56 项，其中国家科技奖 1 项。研究生就业单位主要有设计院、行业管理部门、科研院所、高等学校等。

二、培养目标

具有实事求是的科学态度和端正严谨的诚信学风，理论联系实际，善于钻研与创新，具有良好的团队合作精神；在港口、海岸及近海工程学科上掌握坚实的基础理论和系统的专门知识；具有从事科学研究工作或独立担负专门技术工作的能力。

三、研究方向

1. 河口海岸及近海工程水动力环境
2. 海岸风暴灾害与防灾减灾
3. 港口航道工程泥沙与疏浚
4. 工程结构物及其与周围介质的相互作用
5. 水运工程经济、规划与管理

四、申请条件

港口、海岸及近海工程全英文专业硕士生申请人需要满足以下条件:

1、已在我国认可的海内外高校或学术机构获得本科学位者。

2、能够用英语进行课程学习、阅读文献和进行学术写作，能够用英语进行日常交流。

五、培养年限

学术型硕士学制为 3 年，实行弹性学制，学习年限最短不低于 2 年，最长不超过 5 年。

六、学分要求和课程设置

本专业硕士留学研究生课程总学分为 28 学分，其中学位课程为 18 学分，非学位课程为 10 学分。另设教学环节。硕士生还必须结合研究课题完成一篇硕士论文，并通过答辩。港口、海岸及近海工程专业硕士课程设置如下表。

Harbor，Coastal and Offshore Engineering (081505)

Discipline: Engineering（08）

First-class discipline：Water Engineering（0815）

1. Discipline Description

The Harbor, Coastal and Offshore Engineering discipline was founded in 1952 by Yan Kai who was academician of both Chinese Academy of Sciences and Chinese Academy of Engineering. In 1981, Coastal Engineering was granted as one of the first specialties leading to Doctor and Master degrees, and Offshore Engineering was approved as one of the first specialties leading to Master degree. In 1990, Harbor and Waterway Engineering became the very first Doctoral program among the homogeneous subjects in China. In 2007, thediscipline was chosen as anational key disciplineand one of the key construction disciplines by the 985 Innovative Platforms for Key Disciplines Project.

Based on the State Key Laboratory of Hydrology-Water Resources and Hydraulic Engineering and National Engineering Research Center of Water Resources Efficient Utilization and Engineering Safety, the Harbor, Coastal and Offshore Engineeringdiscipline has more than ten leading talents, includingdistinguished professors of Recruitment Program of Global Young Experts, joint-appointed academicians, winners of New Century Excellent Talents Supporting Plan of Ministry of Education andawardees of Jiangsu Province 333 High-level Personnel Training Project.Aiming at "harbor and waterway characteristics, international first-level", the discipline hosted 624 scientific projects of 239 million total funding, published more than 800 academic papers, more than 30 works and teaching materials, won 55 provincial or ministerialScience and Technology Prizes, and 1 National Science and Technology Prize during the 11th Five-Year Plan. The main employers of graduate students are design institutions, management agencies, research institutions and universities.

2. Program Description

The program in Harbor, Coastal and Offshore Engineering aims at cultivating high-level individuals with solid fundamental knowledge in the theory of harbor, coastal and offshore engineering, who are capable of handling complex technical problems in harbor, coastal and offshore engineering projects, can undertake research and development project in large engineering companies or teaching and research work in academic institutions.

3. Research Directions

The Master program in Harbor, Coastal and Offshore Engineering is mainly oriented (but not limited) to the following research areas:

- Hydrodynamics of estuarine, coastal and off-shore engineering
- Coastal storm disaster and its mitigation
- Sedimentation and dredging in harbor and navigation engineering
- Engineering structure and its inter-action with surrounding medium
- Economy, planning and management of waterway transportation engineering

4. Application Requirements

(1) You have received the bachelor degree from the domestic and overseas universities or academic institutions accredited by the Ministry of Education.

(2) You have the ability to read and write academic papers and communicate in English.

5. Education System and Duration

The master program is 3 years; the duration is minimum 2 years and no more than 5 years.

6. Credits and Courses

A master student must take at least 28 credits of courses, including 18 credits of required course of the degree and 10 credits of Non-required course of the degree. A thesis of the research subject and an oral defense are also required. Module structure of the master program of Harbor, Coastal and Offshore Engineering is listed below.

港口、海岸及近海工程全英文留学硕士研究生课程设置

Courses for Master Students of Harbor, Coastal and Offshore Engineering

课程类别 Categories		课程编号 No	课程名称 Course	学时 Hours	学分 Credit	开课学期 Term	备注 Note
学位课程 18 学分 Required course of the degree 18 Credits	公共课程 General Courses	2015LXS01	*汉语Ⅰ Chinese Language Ⅰ	32	2	秋 fall	必修 RequiredCourse
		2015LXS02	汉语Ⅱ Chinese Language Ⅱ	32	2	春 spring	
		2015LXS03	*中国概况 Introduction to China	32	2	秋 fall	
	学科基础课程 Discipline Basic Courses	2015JC08	矩阵论 Matrix Theory	32	2	秋 fall	
		2015JC03	数值分析 Numerical Analysis	48	3	秋 fall	
		2015JC01	数学物理方程 Partial Differential Equations in Mathematics and sPhysics	32	2	秋 fall	
	专业基础课程 Major BasicCourses	2015GH05	河口海岸动力学 Estuarine and Coastal Dynamics	48	3	春 spring	选修 2 学分 2Credits at least
		2015GH06	泥沙运动力学 Sediment Processes	32	2	春 spring	
		2015JC09	弹性力学 Elastic Mechanics	48	3	秋 fall	
	专业课程 Major Courses	2015GH07	港口工程 Port Engineering	32	2	春 spring	选修 2 学分 2Credits at least
		2015GH08	航道工程 Waterway Engineering	32	2	春 spring	
		2015GH09	海岸工程 Coastal Engineering	32	2	春 spring	
非学位课程 10 学分 Non-required course of the degree 10 Credits		2015LXS05	*跨学科选修 Interdisciplinary Elective	32	2		必修 RequiredCourse
		2015LXS06	*综合素质课 Comprehensive Quality	18	1		
		2015GH10	河口海岸水动力泥沙软件应用 Software Application of Estuarine, Coastal Hydrodynamic and Sediment	32	2	春 spring	选修 7 学分 7Credits at least
		2015GH11	港航工程结构数值分析 Numerical Analysis of Port and Waterway Engineering Structures	32	2	春 spring	
		2015JC10	结构动力学 Structural Dynamics	32	2	春 spring	
		2015JC11	最优化方法 Method of Optimization	48	3	春 spring	
教学环节 Academic Activities		学术活动 Seminar and Conferences					必修 Required Course
		科学研究 Scientific Research					
		文献阅读与综述 Literature Reading and Reviewing					

测绘科学与技术（0816）

学科门类：工学（08）一级学科：测绘科学与技术（0816）

一、专业描述

测绘科学与技术是地球科学的一个分支学科，主要研究内容是对地理表面、空间距离以及海洋深度与阔度进行测量描绘、数据收集与信息整理。测绘科学与技术一级学科包含：大地测量学与测量工程、摄影测量与遥感、地图制图学与地理信息工程等三个二级学科。本一级学科，专注于培养具备地面测量、海洋测量、空间测量、摄影测量、多源遥感信息处理以及地理信息系统开发与应用等方面的知识的人才，使其能在国民经济各部门从事国家基础测绘建设、陆海空运载工具导航与管理、城市和工程建设、矿产资源勘察与开发、国土资源调查与管理、地图与地理信息系统的设计实施和研究、环境保护与灾害预防等领域的工作。

本学科于 1993 年取得“大地测量学与测量工程”硕士学位授权点，1998 年取得“摄影测量与遥感”硕士学位授权点，2005 年获批“测绘科学与技术”一级学科硕士学位授权点。学科还设有“大地测量学与测量工程”博士学位授权点和“测绘科学与技术”博士后流动站，以及“测绘工程”专业学位授权点。学科在精密工程测量、变形监测、摄影测量技术、遥感信息获取与反演、3S 集成技术、GIS 开发与应用等方向形成了鲜明的特色，在国内外具有较高的知名度，在 2004、2008 和 2012 年教育部公布的全国测绘学科综合实力排名中，河海大学测绘学科均位于前列。依托测绘工程研究所、遥感空间

信息工程研究所、水利建设 3S 技术应用联合实验室（与香港理工大学共建）以及江苏省测绘教学示范中心、测绘工程实验室等平台，具有良好的科研及研究生培养环境。实验室配备先进的测量仪器、软件开发平台。毕业生的主要就业方向为各类设计院、科研机构、高等院校以及国土、城建、规划等政府相关部门。

二、培养目标

培养测绘领域的高层次人才，能够胜任本学科科学研究、高等教育、大型工程建设及技术研发与管理等方面工作。具有扎实的大地测量学与测量工程、摄影测量与遥感、地理信息系统的基础理论，掌握测绘学科理论与技术研究的前沿动态，具备从事科学研究的基本素质和独立承担专业工作的技术能力，具有综合运用学科理论和技术解决生产与科研问题的能力。

三、研究方向

测绘科学与技术专业全英文硕士生培养计划包括（但不限于）以下研究方向：

1、大地测量学与测量工程

2、摄影测量与遥感

3、地图制图学与地理信息工程

4、导航与位置服务

5、地下空间测量

6、海洋测绘

四、申请条件

测绘科学与技术专业硕士生申请人需要满足以下条件：

1. 已在我国认可的海内外高校或学术机构获得本科学位者。

2. 能够用英语进行课程学习、阅读文献和进行学术写作，能够用英语进行日常交流。

五、培养年限

攻读学术型硕士学位的标准学制为 3 年，实行弹性学制，学习年限最短不低于 2 年，最长不超过 5 年。

六、学分要求和课程设置

硕士生需要完成总学分为28学分的课程学习，其中学位课程为19学分，非学位课程为 9 学分。另设教学环节。硕士生还必须结合研究课题完成一篇硕士论文，并通过答辩。测绘科学与技术专业硕士课程设置如下表。

Surveying and Mapping（0816）

Discipline：Engineering（08）

First-Class Discipline： Surveying and Mapping（0816）

1. Discipline Description

Surveying and Mapping is a branch of Earth Sciences which the main research content is the measurement and collection of data and information about the physical earth and our environment. It contains three sub-disciplines: Geodesy and Survey Engineering, Photogrammetry and Remote Sensing, and Cartography and Geographic Information Systems (GIS). This discipline focused on training engineering and technical personnel who have the knowledge of topographic surveys, hydrographic surveys, spatial measurements, photogrammetry and remote sensing, remote sensing information processing, GIS development and applications, etc. And these professionals are engaged in the surveying and mapping works such as national basic surveying and mapping projects, vehicle navigation and management, city and engineering construction, mineral resources exploration and exploitation, territorial resources surveys and management, environmental protection and disaster prevention, and implementation and research of Cartography and GIS.

The Master Program of Geodesy and Survey Engineering of Hohai University was set up in1993, Photogrammetry and Remote Sensing in 1998, Surveying and Mapping Engineering in 2001, and the discipline of Surveying and Mapping in 2005. The doctoral degree program of Geodesy and Surveying Engineering was established in 2003 and later in 2007 the post-doctoral research station. The Surveying and Mapping had an extensive popularity both at home and abroad, which formed distinct characteristics inPrecise Engineering Surveying, Deformation Monitoring, “3S” Integration Technology, etc. These platforms, such as the Surveying and Mapping Engineering Institute, the Remote Sensing and Space Information Engineering Institute, the “3S” Technology and Application United Laboratories of Water Conservancy Construction (Cooperating with the Hong Kong Polytechnic University), Surveying and Mapping Engineering Laboratory, provided students with a favorable academic environment.

2. Program Description

The program in and Surveying and Mapping aims at cultivating high-level individuals with solid fundamental knowledge in the field of surveying and mapping and specialized in a particular engineering application, who are capable of handling complex technical problems in large engineering projects, can undertake research and development project in large engineering companies or teaching and research work in academic institutions. Through the program, students have opportunities to develop their problem-solving ability with new knowledge and skills, and to make their own contributions to their research field.

3. Research Directions

The Master program in Surveying and Mapping is mainly oriented (but not limited) to the following research areas:

- Geodesy and Survey Engineering
- Photogrammetry and RemoteSensing
- Cartography and Geographic Information Engineering
- Navigation and location services
- Underground Engineering Surveying
- Hydrographic Surveying and Charting

4. Application Requirements

(1) You have received the bachelor degree from the domestic and overseas universities or academic institutions accredited by the Ministry of Education.

(2) You have the ability to read and write academic papers and communicate in English.

5. Educational System and Duration

The master program is 3 years; the duration is minimum 2 years and no more than 4 years.

6. Credits and Courses

In accordance with the code of graduate study in Hohai University, the Master Program requires students to complete 28 credits of course study and participating other academic activities for graduation, among which 19 credits are required course of the degree, and 9 credits are Non-required course of the degree. A research thesis is also required for obtaining the academic degree. A list of the courses is presented below.

测绘科学与技术全英文留学硕士研究生课程设置

Courses for Master Students of Surveying and Mapping

课程类别 Categories		课程编号 No	课程名称 Course	学时 Hours	学分 Credits	开课学期 Term	备注 Note
学位课程 19 学分 Required course of the degree 19 Credits	公共课 General Courses	2015LXS01	*汉语 I Chinese Language I	32	2	秋 fall	必修课 RequiredCourse
		2015LXS02	*汉语 II Chinese Language II	32	2	春 spring	
		2015LXS03	*中国概况 Introduction to China	32	2	秋 fall	
	专业基础课程 Major BasicCourses	2015JC03	*数值分析 Numerical Analysis	48	3	秋 fall	必修课 RequiredCourse
		2015JC04	*最优化方法 Optimization Methods	32	2	秋 fall	
	专业课程 Major Courses	2015DX01	现代大地测量学 Modern Geodesy	32	2	春 spring	选修 8 学分 8 Credits at least
		2015DX02	最优估计理论在空间大地测量中应用 Application of Optimal Estimation Theory in Space Geodesy	32	2	春 spring	
		2017DX04	全球导航卫星系统原理及应用 Global Navigation Satellite System Principle and Application	32	2	秋 fall	
		2015DX03	GIS 空间分析 GIS and Spatial Analysis	32	2	春 spring	
		2015DX07	环境大地测量学 Environmental Geodesy	32	2	秋 fall	
		2015DX06	遥感科学与进展 Frontiers of Remote Sensing Science	32	2	春 spring	
非学位课程 9 学分 Non-required course of the degree 9 Credits		2015LXS05	*跨学科选修 Interdisciplinary Elective	32	2		必修课 Required Course
		2015LXS06	*综合素质课 Comprehensive Quality	16	1		
		2015DX04	大地测量学与测量工程学科前沿专题讲座 Special Topic on Geodesy and Surveying Engineering	32	2	春 spring	选修 6 学分 6 Credits at least
		2017DX05	高光谱遥感 Hyperspectral Remote Sensing	32	2	春 spring	
		2017DX06	微波遥感 Microwave Remote Sensing	32	2	春 spring	
		2017DX08	计算机视觉 Computer Vision	32	2	春 spring	
		2017DX09	卫星导航定位算法与程序设计 Satellite Positioning Algorithm and Program Design	32	2	秋 fall	
		2015DX05	遥感地学分析 Remote Sensing Geo-Analysis	32	2	春 spring	
		2017DX03	区域发展规划 Regional Developing Plan	32	2	秋 fall	
		2017DX01	高级遥感 Advanced Remote Sensing	32	2	春 spring	
		2017DX02	数字高程模型 Digital Elevation Model	32	2	春 spring	
教学环节 Academic Activities		*学术活动 Seminar and Conferences					必修 Required Course
		*科学研究 Scientific Research					
		*文献阅读与综述 Literature Reading and Reviewing					

地质资源与地质工程(0818)

学科门类：工学(08)　一级学科：地质资源与地质工程

一、专业描述

我校地质资源与地质工程一级学科含地质工程、地球探测与信息技术、地下水科学与工程、地学信息工程四个二级学科，地质工程学科 1986 年获硕士学位授权点，2003 年获博士学位授权点，2006 年成为江苏省重点学科；2005 年地质资源与地质工程获一级学科硕士学位授权点，2011 年获一级学科博士学位授权点，2014 年获批一级学科博士后流动站，是国内培养地质资源与地质工程高级人才的重要基地，全国综合排名处于前列。

本学科现有教师 37 人，其中教授 15 名（其中博导 13 名），副教授 16 名，具有博士学位教师 31 名。学科拥有地质工程安全监测系统、地质参数快速测试系统等先进设备。毕业研究生主要从事水利水电、土木、交通、国土资源等领域的科学研究与管理工作。

二、培养目标

培养德智体全面发展的地质资源与地质工程学科的高级科学技术专门人才，应掌握坚实的理论基础和系统的专业知识，熟悉地质工程领域内常用的测试分析技术方法。能够在地质工程项目的设计勘察、工艺优化、施工项目管理与决策等方面解决一定的工程实际问题，能独立组织地质工程项目的施工或工程评价。毕业后能够在地质、矿产、能源、水利、水电、交通、土木、海洋地质和地理信息等领域，从事科研、教学、生产技术、管理和咨询等工作。

三、研究方向

1. 地质工程（Geological Engineering）

2. 地下水科学与工程（Grounderwater Science and Engineering）

3. 地球探测与信息技术（Geological Prospecting and Information Technology）

四、申请条件

1、已在我国认可的海内外高校或学术机构获得本科学位者。

2、能够用英语进行课程学习、阅读文献和进行学术写作，能够用英语进行日常交流。

五、培养年限

学术型硕士学制为 3 年，实行弹性学制，学习年限最短不低于 2 年，最长不超过 5 年。

六、学分要求和课程设置

本专业硕士留学研究生课程总学分为28学分，其中学位课程为18学分，非学位课程为 10 学分。另设教学环节。具体开设课程见附表。

Geological Resource and Geological Engineering (0818)

Discipline: Engineering (08)

First-Class Discipline: Geological Resource and Geological Engineering (0818)

1. Discipline Description

The sub-discipline of Geological Resource and Engineering (GRE) in Hohai University includes five directions, Geological Engineering (GE), Geophysical Prospecting (GP), Information Technology (IT), Groundwater Science and Engineering (GSE), and Geological Information Engineering (GIE). Under regulations of the Ministry of Education, P.R. China, The GE direction can award Master's and Doctor's degrees since 1986 and 2003 respectively. This direction has been designated as key discipline in Jiangsu Province since 2006. The entire sub-discipline of GRE can award Master's and Doctor's degrees since 2005 and 2011 respectively. From 2014, GRE can accept Post Doctor Fellows (PDF) to conduct research. The engineering discipline in Hohai University has top rankings in China and it has graduated many first-class talents.

The GRE has 37 teachers, including 15 professors, 12 associate professors and 27 teachers with doctorates. The GRE is facilitated with safety monitoring systems, geologic and geophysical equipment and other state of the art amenities. The GRE graduates mainly engage in scientific research and management work in the fields of water conservancy, hydropower, civil engineering, transportation, and resources exploration, etc.

2.Program Description

The purpose of the school is to cultivate well-roundedtop science and technology talents in the field of GRE.The students are required to master basic theories and systematic knowledge, and be familiar with the testing analysis commonly used in the field ogre. The students shall be able to solve practical engineering problems with a certain degree of difficulty, such as design of an exploration program, process optimization, and construction project management. The graduates will be able to independently organize a geological engineering or exploration projects and evaluate the project potential. Aftergraduation, the students can be engaged in scientific research,teaching,R&D in industry, managementand consulting work in the field of geology, mineralexploration, energyexploration, water conservancy and hydroelectric power generation,transportation,civil engineering and marine geological, geographic information,etc.

3.Research Directions

- Geological Engineering
- Groundwater Science and Engineering
- Geophysical Prospecting and Information Technology

4. Application Requirements

(1) You have received the bachelor degree from the domestic and overseas universities or academic institutions accredited by the Ministry of Education.

(2) You have the ability to read and write academic papers and communicate in English.

5. Educational System and Duration

The master program is 3 years; the duration is minimum 2 years and no more than 5 years.

6. Credits and Courses

A master student must take at least 28 credits of courses, including 18 credits of required course of the degree and 10 credits of Non-required course of the degree.

地质资源与地质工程全英文留学硕士研究生课程设置

Courses forMasterStudents of Geological Resource and Geological Engineering

课程类别 Categories		课程编号 Course No.	课程名称 Course Name	学时 Hours	学分 Credit	开课学期 Term	备注 Note
学位课程 18 学分 Required course of the degree 18Credits	公共课程 General Courses	2015LXS01	*汉语 I Chinese Language I	32	2	秋 fall	必修 Required Course
		2015LXS02	*汉语 II Chinese	32	2	春 spring	
		2015LXS03	*中国概况 Introduction to China	32	2	秋 fall	
	专业基础课程 Major Basic Courses	2015JC03	数值分析 Numerical Analysis	48	3	秋 fall	必修 Required Course
		2015JC04	最优化方法 Optimization Methods	48	3	秋 fall	
		2015JC01	数学物理方程 Partial Differential Equations	32	2	春 spring	
		2015JC08	矩阵论 Matrix Theory	32	2	秋 fall	
	专业课程 Major Courses	2015DX12	岩石高边坡工程地质分析理论与方法 Engineering Geological Theory and Research Methods on High Rock Slope Engineering	32	2	春 spring	选修 6 学分 6 Credits at least
		2015DX13	勘探地球物理 Exploration Geophysics	32	2	春 spring	
		2015DX14	环境地球化学 Environmental Geochemistry	32	2	秋 fall	
		2015DX15	地质体加固技术 Reinforcement Methods for Geological Body	32	2	春 spring	
		2015DX16	污染水文地质学 Contaminant Hydrogeology	32	2	秋 fall	
非学位课程 10 学分 Non-degree courses of the degree courses 10 Credits		2015LXS05	*跨学科选修 A course in other discipline	32	2		必修课 Required Course
		2015LXS06	*综合素质课 Comprehensive Quality	16	1		
		2015DX17	水文地质数值计算 Numerical Calculation of Hydrogeology	32	2	春 spring	选修 7 学分 7 Credits at least
		2015DX18	裂隙岩体水动力学 Dynamics of Fluids in Fractured Rocks	32	2	春 spring	
		2017DX11	水井的设计与应用 Well Design and Application	48	3	秋 fall	
		2015SW02	高等地下水动力学 Higher Groundwater Dynamics	32	2	春 spring	
		2015TM02	高等岩土力学 Advanced Computational Mechanics	64	4	春 spring	
		2015TM06	基础工程分析 Foundation Analysis	32	2	春 spring	
教学环节 Academic Activities		*学术活动 Seminar and Conferences					必修 Required Course
		*实践活动 Scientific Research					
		*文献阅读与综述 Literature Reading and Reviewing					

交通运输工程（0823）

学科门类：工学（08）　　一级学科：交通运输工程（0823）

一、专业描述

我校交通运输工程学科肇始于国家重点学科“港口航道与海岸工程”中的水运交通方向和国家重点学科“岩土工程”中的堤坝工程方向。为适应国家交通建设发展需要，于 2000 年组建本学科并于同年获得交通运输规划与管理硕士学位授予权， 2008 年被评为校品牌专业，2010 年获得交通运输工程一级学科硕士学位授予权。学科作为江苏省交通工程技术中心载体，拥有完善的交通工程试验设备。学科创建以来，积极参与国家交通建设事业，承担过多项国家重大交通工程的科研课题，已成为我国极具特色的交通运输工程学科教学科研基地。

二、培养目标

交通工程专业硕士生的培养目标为：掌握坚实的基础理论和系统的专门知识，了解本学科的技术现状和发展趋势，具有严谨求实和勇于探索的科学态度，具备从事科学研究工作的能力和一定的创新能力，具有解决与交通运输工程相关的科学技术问题的能力。

三、研究方向

1、交通运输规划与管理（Transportation planning and management）

2、道路与铁道工程（Highway and railway engineering）

3、交通信息工程与控制（Traffic information engineering and control）

4、载运工具运用工程（Vehicle operation engineering）

四、申请条件

1、已在我国认可的海内外高校或学术机构获得本科学位/硕士学位者。

2、能够用英语进行课程学习、阅读文献和进行学术写作，能够用英语进行日常交流。

五、培养年限

学术型硕士学制为 3 年，实行弹性学制，学习年限最短不低于 2 年，最长不超过 5 年。

六、学分要求和课程设置

本专业硕士留学研究生课程总学分为28学分，其中学位课程为19学分，非学位课程为 9 学分。另设教学环节。具体开设课程见附表。

Transportation Engineering（0823）

Discipline: Engineering (08)

First-Class Discipline: Transportation Engineering (0823)

1. Discipline Description

Transportation Engineering in Hohai University started from the Water Transportation in Port Channel and Coastal Engineering (the national key discipline) and Dam Construction in Geotechnical Engineering (the national key discipline). To fulfill the development needs of the transportation construction in China, the discipline of Transportation Engineering was founded in 2000. In the same year, the discipline was qualified for granting master degree in Transportation Planning and Management. Also, the discipline was evaluated as the brand major of Hohai University. Then, the discipline was qualified for granting master degree in the first level discipline of Transportation Engineering.

Transportation Engineering is the carrier of the Jiangsu Traffic Engineering Technology Center which possesses full-equipped testing devices in traffic engineering. Since the foundation of the discipline, we actively participant the national transportation construction, and have undertaken several national key research projects in transportation engineering area. The discipline has already become a full-featured teaching and research base in the area of Transportation Engineering in China.

2. Program Description

The students should be capable of (1) understanding fundamental knowledge and systematic engineering professions in Transportation Engineering; (2) modeling and analyzing complex technical problems; (3) using fundamental theory, advanced computational methods and experimental techniques to conduct research; and (4) undertaking R&D positions in large complex projects; and (5) excelling in education and research in universities and research institutes.

The program is designed to provide students with an intellectual environment to explore the knowledge and principles in Transportation Engineering through research projects under the guidance of supervisors. Through the program, students have opportunities to develop their problem-solving ability with new knowledge and skills.

3. Research Directions

- Transportation Planning and Management
- Highway and Railway Engineering
- Traffic Information Engineering and Control
- Vehicle Operation Engineering

4. Application Requirements

(1) You have received the bachelor degree from the domestic and overseas universities or academic institutions accredited by the Ministry of Education.

(2) You have the ability to read and write academic papers and communicate in English.

5. Educational System and Duration

The master program is 3 years; the duration is minimum 2 years and no more than 5 years.

6. Credits and Courses

A masterstudent must take at least 28 credits of courses, including 19 credits of required course of the degree and 9 credits of Non-required course of the degree.

交通运输工程全英文留学硕士研究生课程设置

Courses for Master Students of Transportation Engineering

课程类别 Categories		课程编号 Course No	课程名称 Course Name	学时 Hours	学分 Credits	开课学期 Term	备注 Note
学位课程 19 学分 Required course of the degree 19 Credits	公共课 General Courses	2015LXS01	*汉语 I Chinese Language I	32	2	秋 fall	必修 Required Course
		2015LXS02	汉语 II Chinese Language II	32	2	春 spring	
		2015LXS03	*中国概况 Introduction to China	32	2	秋 fall	
	学科基础课程 Discipline Basic Courses	2015JC04	最优化方法 Optimization Methods	48	3	春 spring	
		2015JC03	数值分析 Numerical Analysis	48	3	秋 fall	
	专业基础课程 Major BasicCourses	2017TM01	交通工程学 Traffic Engineering	48	3	春 spring	必修 Required Course
		2015JC09	弹性力学 Elastic Mechanics	32	2	春 spring	
	专业课 Major Courses	2017TM02	交通控制 Traffic Control	32	2	春 spring	选修 2 学分 2 Credits at least
		2017TM03	交通规划 Traffic planning	32	2	春 spring	
		2017TM04	路面工程 Pavement Engineering	32	2	春 spring	
		2017TM05	高等路基工程 Advanced Subgrade Engineering	32	2	春 spring	
非学位课程 9 学分 Non-required course of the degree 9 Credits		2015LXS05	*跨学科选修 Interdisciplinary Elective	32	2	春 spring	必修课 Required Course
		2015LXS06	*综合素质课 Comprehensive Quality	16	1	春 spring	
		2015LXS07	科技论文写作 Academic Paper Writing	32	2	秋、春 fall/spring	
		2017TM06	智能交通系统 Intelligent Transportation System	32	2	春 spring	选修 4 学分 4 Credits at leas
		2017TM07	城市交通网络分析 Urban Traffic Network Analysis	32	2	春 spring	
		2017TM08	道路交通安全 Road Traffic Safety	32	2	秋 fall	
		2015LC05	塑性力学 Plasticity Mechanics	32	2	春 spring	
		2017TM09	高等路面材料 Advanced Pavement Materials	32	2	春 spring	
		2015TM06	基础工程分析 Foundation Analysis	32	2	春 spring	
教学环节 Academic Activities		学术活动 Seminar and Conferences					必修 Required Course
		科学研究 Scientific Research					
		文献阅读与综述 Literature Reading and Reviewing					

农业工程（0828）

学科门类：工学（08）一级学科：农业工程（0828）

一、专业描述

河海大学农业工程学科始于1952年成立的水利与土壤改良专业，是建国后国内最早设立的培养农业工程专门人才的学科之一。1958年更名为农田水利工程专业，1985年获硕士学位授予权。2000年、2003年先后获得农业水土工程硕士、博士学位授予权，2003年、2010年获农业工程一级学科硕士、博士学位授予权。我校水文水资源与水利工程科学国家重点实验室、南方地区高效灌排与农业水土环境教育部重点实验室为本学科发展提供了良好的硬件条件。近五年来，先后承担国家自然科学基金、国家重点研发项目等国家、省部级重大重点科技项目及生产科研项目等200余项,研究生就业单位有科研院所、高等学校、政府机关、水利、农业、国土等部门管理机构、勘测设计部门等。本学科主要研究农业水土资源的合理开发、高效利用与保护，整体研究水平居国内一流水平，部分领域处于领先水平。

二、培养目标

本学科旨在培养具有创新思维和科学精神，掌握农业工程学科领域内基础理论、专门知识和技能方法，对全球农业工程科学的现状和发展趋势有较为全面的了解，具有独立从事本学科科学研究和有效解决所在国实际问题能力的高层次学术型人才。

三、研究方向

1、灌溉排水理论与技术（Irrigation and Drainage Engineering）

2、农业水土环境与保护（Protection of Agricultural Soil and Water Environment）

3、水土保持工程（Soil and Water Conservation）

4、生物环境工程（Bio-environmental engineering）

5、水土资源规划与管理（Planning and Utilization of Agricultural Soil and Water）

四、申请条件

1. 已在我国认可的海内外高校或学术机构获得本科学位者。

2. 能够用英语进行课程学习、阅读文献和进行学术写作，能够用英语进行日常交流。

五、培养年限

学术型硕士学制为 3 年，实行弹性学制，学习年限最短不低于 2 年，最长不超过 5 年。

六、学分要求和课程设置

本专业硕士留学研究生课程总学分为28学分，其中学位课程为19学分，非学位课程为 9 学分。另设教学环节。具体开设课程见附表。

Agricultural Engineering（0828）

Discipline: Engineering (08)

First-Class Discipline:Agricultural Engineering (0828)

1. Discipline Description

The discipline of Agricultural Engineering of Hohai University was founded in 1952 and originated from the department of Water Conservancy and Soil Improvement, which was one of earliest institutes for Agricultural Engineering Education in China after the founding of the People's Republic of China in 1949. The department of Water Conservancy and Soil Improvement was renamed as the Department of Irrigation and Drainage Engineering in 1958 and started the Master degree education in 1985. The discipline started the master education and the Ph.D. education for Agricultural Engineering in 2000 and 2003, respectively. The discipline could run the master's program and Ph.D. program in Level I discipline of Agricultural Engineering in 2003 and 2010, respectively. The State Key Laboratory of Hydrology-Water Resources and Hydraulic Engineering and the Key Laboratory of China South Region Efficient Irrigation & Drainage,Agricultural Soil & Water Environment, Ministry of Education play important roles in serving for the creative research program in the discipline. In the past five years, the discipline has undertaken research programs at national, international cooperation, provincial, and ministerial level more than 200 items and covering research funding, in which 2 programs received the prize of National Sci-tech Improvement and more than 10 programs received the prize of provincial or ministerial sci-tech improvement. Until now, more than one Hundred papers from the discipline have been published in top journals and embodied by SCI and EI and 25 inventions supported by the discipline have got the national invention patents. The Masters have the ability to work in governments, research institutes, universities, and agricultural water and land management agencies and other related departments. The research areas of this discipline include rational utilizing water and soil resources, high-efficient usage and protection of agricultural water and soil resources, etc. The overall study level of this filed were among the first-class in domestic and some areas are in the leading position.

2. Program Description

The Master students should have cooperative spirits in the team work and have the innovative spirit in researches. In addition to master the basic theory of agricultural engineering

disciplines, the Master after graduation should also have the ability to solve scientific problems and have comprehensive understanding of the discipline, as well as having the ability to do the scientific research independently and solve the practical problems efficiently. Overall, the aim of this discipline is to cultivating academic talents for the rational utilization of agricultural water and soil resources all over the world.

3. Research Directions

- Irrigation and Drainage Engineering
- Protection of Agricultural Soil and Water Environment
- Soil and Water Conservation
- Bio-environmental engineering
- Planning and Utilization of Agricultural Soil and Water

4. Application Requirements

(1) You have received the bachelor degree from the domestic and overseas universities or academic institutions accredited by the Ministry of Education.

(2) You have the ability to read and write academic papers and communicate in English.

5. Educational System and Duration

The master program is 3 years; the duration is minimum 2 years and no more than 5 years.

6. Credits and Courses

A master student must take at least 28 credits of courses, including 19 credits of required course of the degree and 9 credits of Non-required course of the degree.

农业工程全英文留学硕士研究生课程设置

Courses for Master Students of Agricultural Engineering

课程类别 Categories		课程编号 No	课程名称 Course	学时 Hours	学分 Credit	开课学期 Term	备注 Note
学位课程 19 学分 Required course of the degree Courses 19 Credits	公共课程 General Courses	2015LXS01	*汉语Ⅰ Chinese Language Ⅰ	32	2	秋 fall	必修 RequiredCourse
		2015LXS02	汉语Ⅱ Chinese Language Ⅱ	32	2	春 spring	
		2015LXS03	*中国概况 Introduction to China	32	2	秋 fall	
	学科基础课程 Discipline Basic Courses	2015JC03	数值分析 Numerical Analysis	48	3	秋 fall	必修 RequiredCourse
		2015JC04	最优化方法 Optimization Methods	32	2	秋 fall	
	专业基础课程 Major BasicCourses	2015SD01	灌排工程系统分析 System Analysis of Irrigation and Drainage Engineering	32	2	春 Spring	必修 RequiredCourse
		2015SD04	农业水土环境 Agricultural Soil and Water Environment	32	2	春 Spring	
	专业课程 Major Courses	2015SD03	试验设计及统计 Design and Statistics of Experiment	32	2	春 Spring	选修 4 学分 4 Credits at leas
		2015SD02	环境生物技术 Environmental biotechnology	32	2	春 Spring	
		2015SD05	节水灌溉理论 Theory on Water-Saving Irrigation	32	2	秋 fall	
		2015SD06	设施农业工程 Installed Agricultural Engineering	32	2	秋 fall	
非学位课程 9 学分 Non-required course of the degree 9 Credits		2015LXS05	*跨学科选修 Interdisciplinary Elective	32	2		必修 RequiredCourse
		2015LXS06	*综合素质课 Comprehensive Quality	16	1		
		2015JC22	高级管理学 Advanced Management	32	2	秋 fall	
		2015JC25	程序设计方法 Methods of Programming	32	2	秋 fall	
		2015LXS07	英文科技写作 The Art of Scientific Presentation and Writing in English	32	2	秋、春 fall or spring	
教学环节 Academic Activities		学术活动 Seminar and Conferences					必修 RequiredCourse
		科学研究 Scientific Research					
		文献阅读与综述 Literature Reading and Reviewing					

环境科学与工程（0830）

学科门类：工学（08）一级学科：环境科学与工程（0830）

一、专业描述

我校环境科学与工程学科为国家重点（培育）学科和江苏省重点学科，以水环境保护与水资源可持续利用为研究特色。近五年来获国家及部省级科技进步奖 20 余项，出版专著及教材 20 余部，获国家专利 80 项，发表三大检索论文 300 余篇。

二、培养目标

本学科旨在培养扎实的基础理论和系统的专门知识，了解本学科前沿和发展趋势，具有严谨求实、勇于探索的科学态度和作风，能够进行理论研究与应用技术开发，并具有一定创新能力的高级专门人才

三、研究方向

1、水资源保护与生态修复(Water Resource Protection and Bioremediation)

2、环境与生态水力学 (Environmental Water Conservancy and Ecological Hydraulics)

3、环境系统规划与综合评价(Environmental System Planning and Complex Assessment)

4、水污染控制与水处理工程(Water Pollution Control and Water Treatment Engineering)

5、固体废弃物处置与资源化利用(Solid Waste Disposal and Resourced

Utilization)

四、申请条件

环境科学与工程全英文专业硕士生申请人需要满足以下条件:

1、已在我国认可的海内外高校或学术机构获得本科学位者。

2、能够用英语进行课程学习、阅读文献和进行学术写作，能够用英语进行日常交流。

五、培养年限

学术型硕士学制为 3 年，实行弹性学制，学习年限最短不低于 2 年，最长不超过 5 年。

六、学分要求和课程设置

本专业硕士留学研究生课程总学分为28学分，其中学位课程为19学分，非学位课程为 9 学分。另设教学环节。硕士生还必须结合研究课题完成一篇硕士论文，并通过答辩。环境科学与工程专业硕士课程设置如下表。

Environmental Science and Engineering（0830）

Discipline：Engineering（08）

First-Class Discipline：Environmental Science and Engineering（0830）

1. Discipline Description

Environmental Science and Engineering at Hohai University is the national key subject. The education and research here are mostly about the treatment of water and wastewater,theprotection of water resources and water environment restoration. The scholarship troop consists of a member of Chinese Academy of Engineering, one special engaged professor of "Yangtze River Scholar", one person of the “National Outstanding Youth Fund ”, 11 doctoral supervisors, 53 Master supervisors, 15 professors and 17 associate professors (associate research fellow).

Over the past five years, this discipline of Environmental Science and Engineering has obtained more than 20National and Provincial Science and Technology Progress Awards, published more than 20 monographs and teaching materials, acquired 80 national patents and published over 300 academic papers. The Environmental Science and Engineering at Hohai University has obtained a large number of achievements and made significant social and environmental contributions in the field of water resource protection and water environment remediation.

2. Program Description

The program in the Environmental Science and Engineering aims at cultivating high-level individuals with solid fundamental knowledge inthe theory of mathematics, chemistry, biology, mechanics and computer application. After graduation, the students are capable of handling complex technical problems in environmental protection, undertaking research and development project in engineering companies or teaching and research work in academic institutions.

The program is designed to provide students with an intellectual environment to explore the knowledge and principles in Environmental Science and Engineering through research project under guidance of an established professor (PhD supervisor). Through the program, students have opportunities to develop their problem-solving ability with new knowledge and skills, and to make their own contributions to their research field.

3. Research Directions

- Water Resource Protection and Bioremediation

- Environmental Water Conservancy and Ecological Hydraulics
- Environmental System Planning and Complex Assessment
- Water Pollution Control and Water Treatment Engineering
- Solid Waste Disposal and Resourced Utilization

4. Application Requirements

(1) You have received the bachelor degree from the domestic and overseas universities or academic institutions accredited by the Ministry of Education.

(2) You have the ability to read and write academic papers and communicate in English.

5. Educational System and Duration

The master program is 3 years; the duration is minimum 2 years and no more than 5 years.

6. Credits and Courses

A masterstudent must take at least 28 credits of courses, including 19 credits of required course of the degree and 9 credits of Non-required course of the degree.

A dissertation of the research subject and an oral defense are also required. Module structure of the doctorate program of Environmental Science and Engineering is listed below.

环境科学与工程全英文留学硕士研究生课程设置

Courses for Master Students of Environmental Science and Engineering

课程类别 Categories		课程编号 No	课程名称 course	学时 hours	学分 credit	开课学期 term	备注 note
学位课程 19 学分 Required course of the degree 19Credits	公共课程 General Courses	2015LXS01	*汉语Ⅰ Chinese Language Ⅰ	32	2	秋 fall	必修 Required Course
		2015LXS02	*汉语Ⅱ Chinese Language Ⅱ	32	2	春 spring	
		2015LXS03	*中国概况 Introduction to China	32	2	秋 fall	
	学科基础课程 Discipline Basic Courses	2015JC04	最优化方法 Optimization Method	32	2	秋 fall	选修 5 学分 5Credits at least
		2015JC03	数值分析 Numerical Analysis	48	3	秋 fall	
		2015JC08	矩阵论 Matrix Theory	32	2	秋 fall	
	专业基础课程 Major Basic Courses	2015HJ01	环境规划 Environmental Planning	32	2	秋 fall	选修 4 学分 4 Credits at least
		2015HJ02	环境水力学 Environmental Hydraulics	32	2	春 spring	
		2015HJ03	环境化学 Environmental Chemistry	32	2	秋 fall	
	专业课程 Major Courses	2015HJ04	水污染控制工程 Water Pollution Control Engineering	32	2	秋 fall	必修 Required Course
		2015HJ05	环境评价与预测 Environmental Assessment and Prediction	32	2	秋 fall	
非学位课程 9 学分 Non-required course of the degree 9Credits		2015LXS05	*跨学科选修 Interdisciplinary elective	32	2		必修 Required Course
		2015LXS06	*综合素质课 Comprehensive Quality	18	1		
		2015HJ06	生态修复理论与技术 Bioremediation Theory and Technology	32	2	春 spring	选修 6 学分 6Credits at least
		2015HJ07	环境科学与工程前沿 Special Topic on Harbor, Coastal and Offshore Engineering	32	2	春 spring	
		2015HJ08	水生生物学 Water Biology Theory	32	2	春 spring	
		2015HJ09	地下水污染与防治 Groundwater Pollution and Control	32	2	春 spring	
教学环节 Academic Activities		学术活动 Seminar and Conferences					必修 Required Course
		科学研究 Scientific Research					
		文献阅读与综述 Literature Reading and Reviewing					

移民科学与管理（1201Z5）

学科门类：管理学（12）一级学科：管理科学与工程（1201）

一、专业描述

河海大学作为移民科学和人才培养的创立和开拓者，1992 年开始在国际上首创工程移民博士、硕士研究方向（在技术经济与管理二级学科内设立），培养工程移民科学与管理方向博士研究生及硕士研究生。2004 年获得移民科学与管理二级学科博士及硕士学位授予权，移民科学研究特色鲜明，已经形成了移民科学基本理论与方法、工程移民管理、生态环境与扶贫移民管理、工程移民规划等比较成熟的研究方向。设立在河海大学的（水利部）中国移民研究中心是世界上至今唯一的全国性移民研究机构。

过去 5 年，本学科主持国家社会科学基金、国家自然科学基金、教育部人文社科基金、江苏省社会科学基金、国家博士后基金等省部级基金课题 30 余项，主持世行、亚行、水利部、农业部、住建部等课题百余项，科研经费充裕。本学科在国内外有较高学术声誉。

二、培养目标

培养具有宽广坚实的管理学和经济学理论基础；掌握系统深入的移民科学知识；具有从事移民科学研究工作或独立担负移民技术工作能力的人才。

三、研究方向

1. 移民科学基本理论与方法。

2. 工程移民管理。

3. 生态环境与扶贫移民管理。

4. 灾害移民管理。

四、申请条件

移民科学及管理专业硕士生申请人需要满足以下条件：

1．已在我国认可的海内外高校或学术机构获得本科学位者。

2．能够用英语进行课程学习、阅读文献和进行学术写作，能够用英语进行日常交流。

五、培养年限

学术型硕士学制为 3 年，实行弹性学制，学习年限为 2 至 5 年。

六、学分要求和课程设置

本专业硕士留学研究生课程总学分为 28 学分，其中学位课程为 18 学分，非学位课程为 10 学分。另设教学环节。具体开设课程见附表。

Resettlement Science and Management（1201Z5）

Discipline：Management（12）

First-Class Discipline：Resettlement Science and Management（1201）

1. Discipline Description

Hohai University, which is the founder and pioneer of discipline and personnel training of resettlement science, initiated resettlement research direction in 1992 under secondary discipline of technical economics and management in the world to train the doctor and master in resettlement science and management. The Hohai University gained the entitlement in granting doctor's and master's degree in secondary discipline of resettlement science and management in 2004. The researches in resettlement science and management have formulated the salient features in basic theories and methods of resettlement science, engineering resettlement management, resettlement management for ecological environment and anti-poverty and resettlement planning due to the project, etc. Approved by the Ministry of Water Resources and based in Hohai University, the national research center for resettlement (NRCR) is the first national and unique research institute specialized in resettlement science.

In the past 5 years, the discipline has undertaken about 30 research programs supported by the National Social Science Foundation, the National Natural Science Foundation, the humanities and Social Science Foundation of the Ministry of Education, Jiangsu Provincial Social Science Foundation and Postdoctoral Science Foundation of China, and hundred programs funded by the World Bank, Asian Development Band, Ministry of Water Resource, Ministry of Agriculture and Ministry of Housing and urban-rural development, etc., resulting in adequate research funds. The discipline enjoys great popularity both at home and abroad.

2. Program Description

The discipline is to train resettlement personnel with the solid and fundamental knowledge in theories and methods of management sciences and economics, who master the knowledge of resettlement science thoroughly and systematically, and is able to undertake research on resettlement science or work on resettlement technical work independently.

3. Research Directions

The doctoral program in resettlement science and management is mainly oriented (but not

limited) to the following research areas:

- Basic theories and methods of resettlement science
- Engineering resettlement management
- Resettlement management for ecological environment and anti-poverty
- Resettlement Management for Disasters

4. Application Requirements

(1) You have received the bachelor degree from the domestic and overseas universities or academic institutions accredited by the Ministry of Education.

(2) You have the ability to read and write academic papers and communicate in English.

5. Educational System and Duration

The master program is 3 years; the duration is minimum 2 years and no more than 5 years.

6. Credits and Courses

A master student must take at least 28 credits of courses, including 18 credits of compulsory courses and 10 credits of optional courses.

移民科学及管理学科硕士研究生课程设置

Courses for Master Students of Resettlement Science and Management

课程类别 Categories		课程编号 No	课程名称 Course	学时 Hours	学分 Credit	开课学期 Term	备注 Note
学位课程 18 学分 Required course of the degree 18 Credits	公共课程 General Courses	2015LXS01	*汉语 I Chinese Language I	32	2	秋 fall	必修 Required Course
		2015LXS02	汉语 II Chinese Language II	32	2	春 spring	
		2015LXS03	*中国概况 Introduction to China	32	2	秋 fall	
	学科基础课程 Discipline Basic Courses	2015JC18	经济学 Economics	32	2	秋 fall	必修 Required Course
		2015JC19	管理学 Management	32	2	秋 fall	
		2015JC15	社会研究方法 Social Research Methods	32	2	秋 fall	
	专业基础课程 Major BasicCourses	2015GG15	移民政策与实践 Resettlement Policies and Practice	32	2	春 spring	必修 Required Course
		2015GG19	移民经济学 Resettlement Economics	32	2	秋 fall	
	专业课程 Major Courses	2015GG13	移民管理学 Resettlement Management Science	32	2	秋 fall	必修 Required Course
非学位课程 10 学分 Non-required course of the degree 10 Credits		2015LXS05	*跨学科选修 A course in other disciplines	32	2		必修 Required Course
		2015LXS06	*综合素质课 Comprehensive Quality	16	1		
		2015GG21	移民规划与实施 Resettlement Planning and Implementation	32	2	秋 fall	选修 7 学分 7 Credits at least
		2015GG22	移民专题 Special Issues on Resettlement	16	1	春 spring	
		2015GG23	土地资源管理与方法 Land resource management and methodology	32	2	春 spring	
		2015GG07	项目评价与管理 Project Management and assessment	32	2	秋 autumn	
		2015GG09	社会评价 Social Assessment	32	2	秋 autumn	
		2015GG10	应用心理学 Applied Physiology	32	2	秋 autumn	
教学环节 Academic Activities		学术活动 Seminar and Conferences					必修 Required Course
		科学研究 Scientific Research					
		文献阅读与综述 Literature Reading and Reviewing					

企业管理（120202）

学科门类：管理学（12）一级学科：工商管理（1202）

一、专业描述

企业管理专业是一门涵盖管理学、经济学、心理学等相关学科，以现代企业管理理论与实践为研究对象，研究现代企业经营管理理论与方法、企业经营活动规律和创新机制的专业，旨在提高企业经营管理效益。

河海大学企业管理专业所属的工商管理学科起源于 1952 年华东水利学院时期的水利水电管理、水能规划与动能经济专业方向，于 2011 年获批江苏省重点一级学科。目前，该学科设有工商管理博士后流动站，具有一级学科博士及硕士学位授权；其二级学科技术经济及管理为水利部重点学科和国家重点（培育）学科，以及江苏省重点序列学科。同时，该学科还获得 MBA 专业学位硕士授权、以及 MPAcc、资产评估、国际商务专业学位硕士授权。此外，水管理方向还是“水文水资源与水利工程科学”国家重点实验室和“水资源高效利用与工程安全”国家工程研究中心的主要研究方向之一。学科现有教育部创新团队 1 支、教育部新世纪优秀人才支持计划入选者 1 人、国务院特殊津贴专家 3 人、江苏省“333 工程”5 人和“青蓝工程”2 人，IFSAM、IFEAMA、中国管理现代化研究会等国际国内学术组织理事多人。2012 年，在教育部学科评估中，河海大学工商管理学科位列第 29 名。

二、培养目标

本专业旨在培养具有扎实现代管理理论基础，熟悉相关学科知识，了解

本专业的发展动态；较为熟练地掌握一门外国语，能阅读本专业外文资料，并能使用外语进行国际学术交流；掌握现代管理方法和技术，能独立分析和解决实际管理问题的高层次人才。毕业后，能够胜任企业、教育科研单位、政府有关部门的管理理论研究或管理实践工作。

三、研究方向

1. 会计学 (Accounting)

2. 财务管理（Finance Management）

3. 市场营销（Marketing）

4. 人力资源管理 (Human Resources Management)

5. 战略管理(Strategic Management)

6. 知识管理与知识产权 (Knowledge Management and Intellectual Property Rights)

7. 游艇管理（Yacht Management）

8. 技术经济及管理（Industrial Economics and Management）

四、申请条件

企业管理专业硕士生申请人需要满足以下条件:

1. 已在我国认可的海内外高校或学术机构获得学士学位者。

2. 能够用英语阅读文献和进行学术写作，能够用英语进行日常交流。

五、学制与学习年限

学术型硕士学制为 3 年，实行弹性学制，学习年限最短不低于 2 年，最长不超过 5 年。

六、学分要求和课程设置

本学科学术型硕士生课程总学分为 29 学分，其中学位课程为 18 学分，非学位课程为 11 学分。另设教学环节。具体开设课程见附表。

所有课程学习一般应在入学后 1 年内完成。

对缺少本学科前期专业基础的研究生，在完成本学科规定学分的同时，导师应根据具体情况指定研究生补修前期的专业课程 2-3 门，并将补修课程列入研究生培养计划，但不计入本学科必须的总学分。

Enterprise Management (120202)

Discipline:Management (12)

First-Class Discipline: Enterprise Management（120202）

1. Discipline Description

The discipline enterprise management belongs to business administration discipline which covering management, economics, psychology and other related disciplines. It takes the modern enterprise management theory and practice as the object and studies the theory and methods of the modern enterprise management, the rules and the innovation mechanisms of the corporate activities, aiming at improving the benefits of the business management.

It is originated from the discipline of water conservancy and hydropower management, hydro-energy planning and kinetic energy economy which could be dated back to the East China Institute of Water Conservancy in 1952. It was authorized the key discipline of Jiangsu Province in 2011. Currently, it possesses a post-doctoral mobile research center and has the authority to grant first-class discipline doctor and master's degree, and the Technical Economy and Management, one of its second-class disciplines, is listed as one of the key disciplines by the Ministry of Water Resources, one of the key (cultivating) disciplines by the state and the key sequence discipline of Jiangsu Province. It also has the authority to grant the degree of MBA, MPAcc, Assets Evaluation and International Business. In addition, Water Management is one of the major research fields of both the State Key Laboratory of Hydrology-Water Resources and Hydraulic Engineering and the National Engineering Research Center of Water Resources Efficient Utilization And Engineering Safety. It currently possesses 1 MOE (Ministry of Education) Innovation Team, 1 NCET (Supported by Program for New Century Excellent Talents in University) winner, 3 Experts enjoying the Special Allowance granted by State Council, 5 Technological leading talents of Jiangsu Province "333" Project, 2 Experts of " Qing Lan " Project and several members of such domestic and international academic organizations as IFSAM, IFEAMA, CSMM (Chinese Society For Management Modernization). In 2012, the Business Administration discipline in Hohai University ranked 29 in the Discipline Assessment conducted by the Ministry of Education of PRC.

2. Program Description

It aims at cultivating the students to be equipped with solid modern management and economic management theoretical foundation, familiar with the knowledge of the relevant

disciplines and understand the development of the discipline. It requires the students to master a foreign language, be able to read the professional foreign language materials and attend the international academic activities by the foreign language. It will finally cultivate high-level talents who master modern management methods and techniques and are able to analyze and solve the actual management issues independently. After graduation, they shall be qualified for the scientific and teaching works in universities and research institutions, or high-level management works in enterprises or government.

3. Research Directions

- Accounting
- Financial Management
- Marketing
- Human Resources Management
- Strategic Management
- Knowledge Management and Intellectual Property Rights
- Yacht Management
- Technical Economy and Management

4. Application Requirements

(1) You have received the bachelor degree from the domestic and overseas universities or academic institutions accredited by the Ministry of Education.

(2) You have the ability to read and write academic papers and communicate in English.

5. Educational System and Duration

The master program is 3 years; the duration is minimum 2 years and no more than 5 years.

6. Credits and Courses

A master student must take at least 29 credits of courses, including 18 credits of required course of the degree and 11 credits of Non-required course of the degree. Academic Activities will be set up in addition. The specific courses are given as follows. The study of all courses should be finished within one year after enrolling.

For the Master students who are lack of the preliminary professional basis of the discipline, it requires them not only to accumulate the regular credits of the discipline, but also make up 2 or 3 preliminary professional courses assigned by the supervisor based on the specific situations.

企业管理全英文留学硕士研究生课程设置

Courses for Master Students of Enterprise Management

课程类别 Categories		课程编号 No	课程名称 Course	学时 Hours	学分 Credit	开课学期 Term	备注 Note
学位课程 18 学分 Required course of the degree 18Credits	公共课程 General Courses	2015LXS01	*汉语Ⅰ Chinese Language Ⅰ	32	2	秋 fall	必修 Required Course
		2015LXS02	汉语Ⅱ Chinese Language Ⅱ	32	2	春 spring	
		2015LXS03	*中国概况 Introduction to China	32	2	秋 fall	
	学科基础课程 Discipline Basic Courses	2015JC23	高级经济学 Advanced Economics	32	2	秋 fall	选修 4 学分 4 Credits at least
		2015JC22	高级管理学 Advanced Management	32	2	秋 fall	
		2015SX01	应用统计与计量模型 Applied Statistics and Econometric Models	32	2	秋 fall	
		2017SX31	现代决策方法 Modern Decision-Making Method	32	2	秋 fall	
		2017SX32	高级运筹学 Advanced Operations Research	32	2	秋 fall	
	专业基础课程 Major Basic Courses	2015SX02	市场营销 Marketing	32	2	秋 fall	选修 4 学分 4 Credits at least
		2015SX09	公司理财 Corparate Finance	32	2	春 spring	
		2015SX04	人力资源管理 Human Resources Management	32	2	秋 fall	
		2015SX08	会计学 Accounting	32	2	秋 fall	
		2017SX09	公司财务分析 Corporate Finance Analysis	32	2	春 spring	
		2017SX11	知识管理 Knowledge Management	32	2	秋 fall	
		2017SX13	技术管理学 Technical Management	32	2	春 spring	
		2017SX14	技术经济学 Technical Economy	32	2	秋 fall	
		2015SX05	战略管理 Strategic Management	32	2	春 spring	
	专业课程 Major Courses	2017SX15	品牌定位 Brand Position	32	2	春 spring	选修 4 学分 4 Credits at least
		2017SX16	知识产权贸易与管理 Trade and Management of Intellectual Property	32	2	春 spring	
		2017SX17	技术创新管理 Technological Innovation Management	32	2	春 spring	
		2017SX18	企业跨国经营与管理 Transnational Operation and Management	32	2	春 spring	
		2017SX19	高级管理会计 Advanced Management Accounting	32	2	春 spring	
		2017SX20	企业竞争战略与竞争分析 Business Competitive Strategy and CompetitionAnalysis	32	2	春 spring	

		2017SX21	组织理论与组织设计 Organization Theory and Design	32	2	春 spring	
		2017SX22	绩效与薪酬管理 Performance and Compensation Management	32	2	春 spring	
		2017SX23	金融中介与资本市场 Financial Intermediaries and Capital Market	32	2	春 spring	
		2017SX24	销售与客户管理 Sales and Customer Management	32	2	秋 fall	
		2017SX25	高级审计 Advanced Auditing	32	2	春 spring	
		2017SX26	游艇俱乐部经营 Yacht Club Operation	32	2	秋 fall	
		2017SX27	游艇商务策划 Yacht Business Planning	32	2	秋 fall	
		2017SX28	游艇投资与产业 Yacht Investment and Industry	32	2	秋 fall	
		2017SX29	技术经济评价理论与方法 Theory and Method of Technological Economy Appraisal	32	2	秋 fall	
		2017SX30	高新技术项目管理 High-TechProject Management	32	2	春 spring	
非学位课程 11 学分 Non-required course of the degree 11Credits		2015SX06	*英文科技写作 The Art of Scientific Presentation and Writing in English	32	2		必修 Required Course
		2015LXS06	*综合素质课 Comprehensive Quality	18	1		必修 Required Course
			从本学科选修硕士专业基础或专业课程	96	6		必修 Required Course
		2015LXS05	*跨一级学科选修硕士课程（公共课除外） A course in other Disciplines	32	2		必修 Required Course
教学环节 Academic Activities		学术活动（含博导讲座） Seminar and Conferences					必修 Required Course
		实践活动 Practical Activity					
		文献阅读与综述 Literature Reading and Reviewing					

公共管理（1204）

学科门类：管理学（12）一级学科：公共管理学（1204）

一、专业描述

公共管理是当代国际社会通行的一门新兴学科。作为综合运用多种科学理论和方法来研究公共管理活动及其规律的知识体系，公共管理从属于管理学门类。公共管理是同管理科学与工程、工商管理、农林经济管理、图书情报档案管理相并列的一个一级学科，其下还分设行政管理、社会医学与卫生事业管理、社会保障、教育经济与管理、土地资源管理等 5 个二级学科专业。随着国际社会公共管理现代化、科学化、专业化要求的不断提升，国际社会对各个国家的公共管理改革实践越来越高度重视。

我校公共管理学科于 2003 年获批行政管理硕士点，2005 年获得公共管理一级学科硕士学位授予权。学科现有导师 28 人，其中教授 14 人，副教授 12 人，博士生导师 8 人，具有博士学位的教师 24 人；已培养硕士研究生 500 多人。经过多年的培育和发展，学科在公共政策、公共经济、土地资源管理、移民管理等领域取得了较为丰硕的成果，形成了我校公共管理学科的特色。

二、培养目标

公共管理专业旨在培养具有当代国际公共管理理论、技术、方法等学科素养，系统掌握国际公共管理的科学理论和专门知识，具有宽厚的科学基础知识和复合型、应用型的知识结构，具有创新性思维和运用管理、政治、经济、法律和现代科技等多科学知识进行公共政策分析和公共事务管理的能力，

能够胜任公共管理理论研究、政府及公共部门管理实践与实务等工作的高级公共管理人才。

培养方案的设计要为学生提供良好的学术环境，学生通过了解学习当代国际公共管理理论前沿，探索新知识和应用公共管理原理解决各国公共管理领域的现实问题。鼓励学生应用获得的知识和技能发展解决公共管理问题的能力，为推进各国公共管理实践深入发展作出新贡献。

三、研究方向

公共管理学术型硕士研究生全英文培养计划包括以下主要研究方向：

1. 行政管理（Administration Management）。

2. 社会保障（Social Security）。

3. 土地资源管理（Land Resource Management）。

4. 移民管理（Resettlement Management）。

四、申请条件

公共管理学术型硕士生申请人需要满足以下条件：

1、已在我国认可的海内外高校或学术机构获得管理学或相关学科学士学位者。

2、能够用英语进行课程学习、阅读文献和进行学术写作，能够用英语进行日常交流。

五、培养年限

公共管理学术型硕士学制为 3 年，实行弹性学制，学习年限最短不低于 2 年，最长不超过 5 年。

六、学分要求和课程设置

硕士生需要通过完成不少于 28 学分的课程学习，其中学位课程学分不低于 18 学分，其余为非学位课程。硕士生还必须结合研究课题完成一篇硕士论文，并通过答辩。公共管理学术型全英文留学硕士研究生课程设置如下表。

Public Management（1204）

Discipline : Management（12）

First-Class Discipline : Public Administration（1204）

1. Discipline Description

Public Administration is an emerging discipline prevailing in the contemporary international communities. As a knowledge system, public management subordinates to the discipline category of management and aims to investigate a variety of activities related with public management and reveal potential law underlying such activities through comprehensively using various scientific theories and research methods. Public Management, as a first-level discipline, is paralleled with the disciplines of management science and engineering, business management, the economic management of agriculture and forestry, the management of books, and the information and archives. Normally, the discipline of public management includes five sub-disciplines or majors: public management, the management of social-medical-sanitation, social security, educational economics and management, and land resource management. With the increasing need of modernization, scientification and specialization on international social and public management, more and more attention is paid on the reform and practice of public management in various countries.

The discipline of public management at Hohai University can be traced back to those research directions related to public management established in some master programs such as "technology economics and management" and "Marxist theory and ideological and political education" in 1994. More than 500 Masters were trained with the background of public management. It also awarded some achievements in public policies, public economy, land resource management and resettlement management, all of which have been acknowledged as the characteristics of our own discipline of public management. With several years' discipline construction and development, the master program on public management (i.e., administration management) was approved to set up in 2003, and awarded the master degree-conferring qualification of public management as a first-level discipline in 2005, including "public management", "social security", "land resource management", "education economic and management", and "social medicine and health management".

The discipline of Public Management has 28 faculties, including over 14 professors and 12 associate professors. Twenty-four of them have earned their doctor's degrees. This discipline

has 8 doctoral supervisors. The reasonably structured staff arrangement is key guarantee for cultivating high-level public managers, occupation-appropriate, market-satisfied excellent practical talents and promising students motivated to further study.

2. Program Description

The master program in public management aims to cultivate high-level professional talents with comprehensive knowledge and theories of international public management, who are capable of getting insight into the status and trend of the discipline of public management, and have good international visions, honesty and team-work spirits. The programs aims at training excellent academic individuals who are skilled in dealing with public management issues and public policy analyses, and applying the specialized knowledge and professional skills on management science, politics, economics, law and modern technology to develop theories and to solve practical problems in public management filed.

The program is designed to provide students with excellent environment and intellectualguidance toknow the frontier of international public management and its trends of theoretical development, to master the knowledge, principles and multiple skills in public management, to expertly resolve practical or theoretical problems relevant with public management via research project supervised by experienced professors or experts. Through the program, students' professional skills, specialized knowledge, and related problem-solving abilities would be greatly improved, which are necessary to make their own contributions to their research fields.

3. Research Directions

The Master of Public Management program is mainly oriented (but not limited) to the following research areas:

- Administration Management.
- Social Security.
- Land Resource Management.
- Resettlement Management.

4. Application Requirements

(1) You have received the bachelor degree in management science or related disciplines from the domestic and overseas universities or academic institutions accredited by the Ministry of Education.

(2) You have the ability to read and write academic papers and communicate in English.

5. Educational System and Duration

The master program is 3 years; the duration is minimum 2 years and no more than 5 years.

6. Credits and Courses

A master student must take at least 28 credits of courses, including minimum 18 credits of required course of the degree and the rest credits of non-required course of the degree.

A research thesis is also required course of the degree for obtaining the academic degree and the students must successfully defend their thesis. A list of the courses for master program in the discipline of Public Management is presented below.

公共管理全英文留学硕士研究生课程设置

Courses for Master Students of Public Management

课程类别 Categories		课程编号 No	课程名称 Course	学时 Hours	学分 Credit	开课学期 Term	备注 Note
学位课程 20 学分 Required course of the degree 20 Credits	公共课程 General Courses	2015LXS01	汉语Ⅰ Chinese Language Ⅰ	32	2	秋 fall	必修 RequiredCourse
		2015LXS02	汉语Ⅱ Chinese Language Ⅱ	32	2	春 spring	
		2015LXS03	中国概况 Introduction to China	32	2	秋 fall	
	学科基础课程 Discipline Basic Courses	2015JC18	经济学 Economics	32	2	秋 fall	
		2015JC19	管理学 Management	32	2	春 spring	
		2015JC15	社会研究方法 Methods of Social Research	32	2	秋 fall	
	专业基础课程 Major BasicCourses	2015JC14	公共政策分析 Public Policy Theory	32	2	春 spring	选修 4 学分 4 Credits at least
		2015GG03	公共人力资源管理 Public Human Resource Management	32	2	春 spring	
	专业课程 Major Courses	2015GG01	土地资源管理理论与方法 Theories and Method of Land Resource Management	32	2	春 spring	选修 4 学分 4 Credits at least
		2015GG13	移民管理学 Resettlement Management	32	2	春 spring	
非学位课程 9 学分 Non-required course of the degree 9 Credits		2015LXS05	跨学科选修 Interdisciplinary Elective	32	2	秋 fall	必修 RequiredCourse
		2015LXS06	综合素质课 Comprehensive Quality	16	1	春 spring	
		2015GG14	公共组织理论 Public Organization Theory	32	2	秋 fall	选修 6 学分 6Credits at least
		2015GG07	项目评价与管理 Evaluation and Management of the Project	32	2	秋 fall	
		2015GG08	资源与环境经济学 Environment and Natural Resource Economics	32	2	春 spring	
		2015GG09	社会评价 Social Assessment	32	2	秋 fall	
		2015GG12	社会福利与社会救助 Social Welfare and Social Relief	32	2	秋 fall	
教学环节 Academic Activities		学术活动 Seminar and Conferences					必修 Required Course
		科学研究 Scientific Research					
		文献阅读与综述 Literature Reading and Reviewing					

全英文留学专业学位硕士研究生培养方案

翻译硕士（055100）

一、专业描述

翻译硕士专业学位，即 Master of Translation and Interpreting，简称 MTI，是经国务院学位委员会批准实施的全国专业学位教育。专业翻译分为口译、笔译两大方向，口译主要分为同声传译和交替传译，可细化分为会议口译、商务口译、法庭口译等。笔译分为外译中和中译外，按照应用领域可细分为文学翻译、科技翻译等。针对留学生，主要进行母语与汉语之间的互译培养，需要留学生具有一定汉语基础。

二、培养目标

培养掌握翻译硕士领域坚实的基础理论和宽广的专业知识，具有较强的解决实际问题的能力，熟练掌握中外两种语言的语言规律及其相互之间的对应关系，具有扎实的语言基础和高超的翻译技能，能够掌握一门第二外国语，能较熟练地使用第二外国语进行口头和书面的交流，适应国家经济、文化、社会建设需要的高层次、应用型、专业性口笔译人才。

三、研究方向

1、采用课程学习、实践教学和学位论文相结合、启发式和研讨式教学方法。加强案例库建设和案例教学，聘请有丰富经验的专家讲课或开设讲座。注重实际应用，重视培养学生的思维能力及分析问题和解决问题的能力

2、加强实践环节，建立实践培养基地，与政府机关、产业部门等企事业单位联合培养。

3、主要进行英语或法语与汉语之间的互译研究。

四、申请条件

1.已在我国认可的海内外高校或学术机构获得本科学位/硕士学位者。

2.能够用英语进行课程学习、阅读文献和进行学术写作，能够用英语进行日常交流。

五、培养年限

攻读全日制专业学位的标准学制为 2 年，实行弹性学制，学习年限最短不低于 2 年，最长不超过 4 年。

六、学分要求和课程设置

本专业硕士留学研究生课程总学分为 30 学分，其中学位课程 20 学位，非学位课程 10 学分。另设实践环节 10 学分。具体开始课程见附表。

Professional Master of Translation and Interpreting（055100）

1. Discipline Description

Master of Translation and Interpreting (MTI), national professional degree, received the approval of the Academic Degrees Committee of the State Council. Professional translation is divided into interpretation and translation. Interpretation is mainly about simultaneous interpretation and alternating interpretation, in content and forms covering conference interpretation, business interpretation, court interpretation and so on. Translation has two directions, translation English to Chinese and translation Chinese to English, in accordance with the application areas can be broken down into literary translation, science and technology translation and so on.

2. Program Description

The Master of Translation and Interpreting provides you with the opportunity to engage with international experts in the fields of basic theory, professional knowledge, and practical ability. You will attend seminars on language foundation, translation skills and the second foreign language acquisition. You will be trained to apply your knowledge of language in diverse settings, including teaching, translation, interpretation, journalism and media, second foreign language for oral and written communication and adaption to the national economic, cultural and social construction.

3. Research Directions

(1) You will be taught by experts in translation and interpretation with strengths in course study, practical teaching and degree thesis. Access the ‘College of International Languages and Cultures of Hohai University’ – a groundbreaking and internationally recognized translating initiative in cultivation students' thinking ability and skills to solve problems by our talented group of specialist and educators.

(2) You will be given precious opportunities to study and work in government agencies, industrial sectors and other enterprises and institutions. We will unceasingly strengthen the practice of links among the establishment of practice training bases.

(3) You will be offer two tutors, school mentor guidance and outside mentor cooperation to cultivate.

4. Application Requirements

(1) You have received the bachelor degree from the domestic and overseas universities or academic institutions accredited by the Ministry of Education.

(2) You have the ability to read and write academic papers and communicate in English.

5. Educational System and Duration

The master program is 2 years; the duration is minimum 2 years and no more than 4 years.

6. Credits and Courses

A master student must take at least 30 credits of courses, including 20 credits of required course of the degree and 10 credits of Non-required course of the degree.

翻译硕士专业学位全英文留学研究生课程设置

Courses for Professional Master Students of Translation and Interpreting

课程类别 Categories		课程编号 No.	课程名称 Course	学时 Hours	学分 Credits	开课学期 Term	备注 Note
学位课程 20 学分 Required course of the degree 20 Credits	公共课程 General Courses	2015LXS01	汉语 I Chinese Language I	32	2	秋 fall	必修 Required Course
		2015LXS02	汉语 II Chinese Language II	32	2	春 spring	
		2015LXS03	中国概况 Introduction to China	32	2	秋 fall	
	学科基础课程 Discipline BasicCourses	18E0101	中国语言文化 The Chinese Language and Culture	48	3	春 spring	选修 3 学分 3Credits at least
		18E0102	翻译概论 General Introduction to Translation Studies	48	3	秋 fall	
		18E0103	口译理论与实践 Theory and Practice of Interpretation	48	3	秋 fall	必修 Required Course
		18E0104	笔译理论与实践 Theory and Practice of Written Translation	48	3	秋 fall	
	专业课程 Major Courses	18E0105	交替传译 Consecutive Interpretation	48	3	春 spring	口译方向必修 Required for Oral Interpretation
		18E0106	同声传译 Spontaneous Interpretation	48	3	春 spring	
		18E0107	文学翻译 Literary Translation	48	3	春 spring	笔译方向必修 Required for Written Interpretation
		18E0108	非文学翻译 Non-Literary Translation	48	3	春 spring	
非学位课程 10 学分 Non-required course of the degree 10 Credits		2015LXS06	综合素质课 Comprehensive Quality	16	1		必修 Required Course
		00E0002	信息检索 Information Retrieval	16	1	秋 fall	
		00E0003	知识产权 Intellectual Property	16	1	秋 fall	
		18E0109	中外翻译简史 Brief History of Translation at Home and Abroad	16	1	春 spring	选修 1 学分 1Credit at least
		18E0124	科技翻译 EST Translation	16	1	秋 fall	
		18E0125	翻译行业规范与翻译实践技术 Translation Industry Standards and Translation Practices	16	1	秋 fall	必修 Required course
		18E0112	计算机辅助翻译 Computer-Aided Translation	32	2	秋 fall	选修 4 学分 4 Credits at least
		18E0110	商务口译 Business Interpretation	32	2	春 spring	
		18E0111	中外语言比较 A Comparative Study of Chinese and Foreign Languages	32	2	秋 fall	
实践环节 10 学分 Practice Activities 10 Credits			翻译项目认知 Translation Project Awareness	48	1	秋、春 fall, spring	必修 Required Course
			翻译项目专题研究 Translation Project in Special Study	240	5	秋、春 fall, spring	

	翻译案例比较 Translation Case Comparison	144	2	秋、春 fall, spring	
	翻译项目管理 Translation Project Management	48	1	秋、春 fall, spring	
	实践交流能力 Practical Communication Skills	48	1	秋、春 fall, spring	

水利工程领域（085214）

一、专业描述

河海大学水利工程学科是我国最早培养本科生、研究生和留学生的学科专业，也是最早获得全部二级博士授予点的学科，首批 211 工程重点建设学科、国家一级重点学科和国家优势学科创新平台建设学科，2008 和 2012 年学科评估蝉联第一。拥有由院士、千人计划、长江学者、杰青、国家教学名师，以及一批具有国际教育背景和视野的中青年教师组成的结构合理的学科梯队。水利工程一级学科设有水文学及水资源、水力学及河流动力学、水工结构工程、水利水电工程、港口海岸及近海工程、水利水电建设与管理、城市水务等 7 个二级学科。

该学科发挥综合优势，针对重大水科学问题开展系统研究，取得系列原创性成果；在长江、黄河、太湖等大江大河规划、治理中，发挥重大智库作用；直接参与三峡、南水北调等国家重大工程的科技攻关，发挥重大科技支撑作用；为数百座大中型水库提供大坝安全监控、水文预报、水库调度等成套关键技术，产生巨大经济、社会、生态效益。

二、培养目标

培养适应经济社会发展需要，在水利工程领域内掌握坚实的基础理论和系统的专门知识，了解水利工程领域的现状和发展趋势，具备良好的国际视野、诚信的学术作风、积极的团队合作精神，具有较强的解决实际问题的能力，能够承担专业技术或管理工作、具有良好的职业素养，熟练掌握计算机技术和英语，了解中国文化并初步具备汉语日常交流能力的高层次、应用型专门人才。

三、研究方向

1、水文学及水资源(Hydrology and Water Resources)

2、水力学及河流动力学(Hydraulics and River Dynamics)

3、水工结构工程(Hydraulic Structure Engineering)

4、水利水电工程(Hydraulic and Hydro-Power Engineering)

5、港口海岸及近海工程(Harbor, Coastal and Offshore Engineering)

6、城市水务(Urban Water Conservancy)

7、水利水电建设与管理(Construction and Project Management of Water Conservancy and Hydropower Structures)

8、生态水利学(Ecological Water Conservancy)

四、申请条件

1、已在我国认可的海内外高校或学术机构获得本科学位者。

2、能够用英语进行课程学习、阅读文献和进行学术写作，能够用英语进行日常交流。

五、培养年限

攻读全日制专业学位的标准学制为 2 年，实行弹性学制，学习年限最短不低于 2 年，最长不超过 4 年。

六、学分要求和课程设置

本专业硕士留学研究生课程总学分为 27 学分，其中学位课程为 18 学分，非学位课程为 9 学分。另设教学环节。具体开设课程见附表。

Professional Master of Hydraulic Engineering（085214）

1. Discipline Description

The discipline of Hydraulic Engineering in Hohai University is the discipline that firstly started to cultivate undergraduate students, postgraduate students and oversea students in China. It is the first discipline that is approved to grant the Doctor's degree in all the 2nd-class disciplines in China. This discipline is the Key Constructive Discipline of the 211 Project, the National Key Subject, and the Key Constructive Discipline of the Innovation Platform for Superiority Subject. The discipline of Hydraulic Engineering was ranked as the top one in the national discipline evaluations in 2008 and 2012. Faculty of this discipline include academician, scholars of the Thousand Talents Program, the Yangtze River Scholar Professors, the National Science Foundation for Distinguished Young Scholars, the Nationally Outstanding Teachers, and experienced teachers with international education backgrounds and visions.

This discipline has obtained fruitful innovative achievements in major water issues, and plays a significant role in the planning and regulation of large rivers and lakes such as the Yangtze River, the Yellow River, and the Taihu Lake. The faculty have participated in the scientific and technological breakthrough of major projects such as the South-to-North Water Diversion Project and the Three Gorges Project, and have played a major role in the development of science and technology. The discipline has provided many key techniques, such as dam safety monitoring hydrological forecasting, and reservoir regulation, for hundreds of large and medium-sized reservoirs, generating huge economic, social and ecological benefits.

2. Program Description

To meet the requirement of social-economic development, the master program in Hydraulic Engineering aims at cultivating high-level academic individuals with comprehensive fundamental knowledge and theory on hydraulic engineering, who are capable of getting insight into the status and development trend of hydraulic

engineering, have good international visions, honest and team-work spirits. The program also aims at training high-level researchers who know about Chinese culture, are able to use the Chinese language for daily communication, and have the ability of using computers and English to carry out scientific research and academic exchange.

3. Research Directions

- Hydrology and Water Resources
- Hydraulics and River Dynamics
- Hydraulic Structure Engineering
- Hydraulic and Hydro-Power Engineering
- Harbor, Coastal and Offshore Engineering
- Urban Water Conservancy
- Construction and Project Management of Water Conservancy and Hydropower Structures
- Ecological Water Conservancy

4. Application Requirements

(1) The applicant should obtain the bachelor degree from the domestic and overseas universities or academic institutions accredited by the Ministry of Education, China.

(2) The applicant shouldhave the ability to read and write academic papers and communicate in English.

5. Educational System and Duration

The master program is 2 years; the duration is minimum 2 years and no more than 4 years.

6. Credits and Courses

A master student must take at least 27 credits of courses, including 18 credits of required course of the degree and 9 credits of Non-required course of the degree.

水利工程领域专业学位全英文留学研究生课程设置

Courses for Professional Master Students of Hydraulic Engineering

课程类别 Categories		课程编号 No	课程名称 Course	学时 Hours	学分 Credit	开课学期 Term	备注 Note
学位课程 18 学分 Required course of the degree 18Credits	公共课程 General Courses	2015LXS01	汉语 I Chinese Language I	32	2	秋 Fall	必修 6 学分 Required Course
		2015LXS02	汉语 II Chinese Language II	32	2	春 Spring	
		2015LXS03	中国概况 Introduction to China	32	2	秋 Fall	
	学科基础课程 Discipline Basic Courses	2015JC03	数值分析 Numerical Analysis	32	3	秋 Fall	选修 6 学分 6 Credits at least
		2015JC04	最优化方法 Optimization Methods	32	2	秋 Fall	
		2015JC01	数学物理方程 Partial Differential Equations	32	2	春 Spring	
		2015JC02	应用数学 Applied Mathematics	64	4	春 Spring	
	专业课程 Major Courses	2015SW06	(组 I) 现代水文模拟及预报 (Group I) Modern Hydrological Modeling and Forecasting	32	2	秋 Fall	选修任一组 6 学分 One group of courses required (6 Credits)
		2015SW07	(组 I) 水资源规划与管理 (Group I) Water Resources Planning and Management	32	2	秋 Fall	
		2015SW04	(组 I) 地下水数值模拟 (Group I) Numerical Simulation of Groundwater	32	2	秋 Fall	
		2017SD01	(组 II)河流动力学 (Group II) River Mechanics	32	2	春 Spring	
		2017SD02	(组 II)高等水工结构学 (Group II) Advanced Hydraulic Structure	32	2	春 Spring	
		2017SD03	(组 II)工程渗流分析与控制 (Group II) Seepage Analysis and Controlling Engineering	32	2	春 Spring	
		2015SD08	(组 II)多目标决策理论及方法 (Group II) Theory of Multi-Objective Decision-making	32	2	春 Spring	
		2015GH05	(组 III)河口海岸动力学 (Group III) Estuarine and Coastal Dynamics	32	2	秋 Fall	
		2017GH01	(组 III)港口航道工程 (Group III) Harbor and Waterway Engineering	32	2	春 Spring	
		2017GH02	(组 III)海岸及近海工程 (Group III) Coastal and Offshore Engineering	32	2	春 Spring	
非学位课程 9 学分 Non-Required course of thedegree 9 Credits		2015LXS05	跨学科选修 A course in other disciplines	32	2		必修 Required Course
		2015LXS06	综合素质课 Comprehensive Quality	16	1		必修 Required Course
		2015SW08	水信息采集与处理 Collection of Water Information and Data Processing	32	2	春 Spring	选修 6 学分 6 Credits at least
		2015SW09	水环境数学模型 Mathematic Model of Water Environment	32	2	春 Spring	
		2017SW01	水文不确定性与系统分析 Hydrological Uncertainty and System Analysis	32	2	春 Spring	

	2017SD04	工程水动力学 Engineering Hydrodynamics	32	2	春 Spring	
	2017SD05	土石坝地震工程 Earth Rock Earthquake Engineering	32	2	春 Spring	
	2015SD09	水力发电工程 Hydroelectric Engineering	32	2	春 Spring	
	2015GH10	河口海岸水动力泥沙软件应用 Software Application of Estuarine, Coastal Hydrodynamic and Sediment	32	2	春 Spring	
	2015GH11	港航工程结构数值分析 Numerical Analysis of Port and Waterway Engineering Structures	32	2	春 Spring	
	2015LXS07	英文科技写作 The Art of Scientific Presentation and Writing in English	32	2	春、秋 Spring, Fall	

项目管理领域（085239）

一、专业描述

河海大学项目管理专业属于管理科学与工程一级学科，侧重于工程项目的规划与管理，具有系统性、综合性和复杂性等特点。河海大学管理科学与工程学科 1995 年获硕士学位授予权，2003 年获博士学位授予权，工程管理与项目管理是江苏省重点学科，2007 年获准设立博士后流动站。

二、培养目标

在本门学科上掌握扎实的基础理论和宽广的专业知识，了解本领域的前沿，培养能在各类工商企业管理、工程建设管理、相关政府部门及其他组织的从事项目管理工作的高层次、应用型、复合型、具有全球视野的项目管理专门人才。具有从事科学研究工作或独立担负专门技术工作的能力，具有实践能力、创新能力、沟通与合作能力，能适应全球化趋势，进行跨文化沟通，有较强的项目管理分析与决策能力，具有组织协调项目管理工作的领导潜质。

三、研究方向

1、工程项目规划与管理（Engineering Project Planning and Management）

2、房地产项目开发与管理（Real Estate Project Development and Management）

3、国际工程管理（International Engineering Management）

4、物流与供应链管理（Logistics and Supply Chain Management）

四、申请条件

1、已在我国认可的海内外高校或学术机构获得本科学位者。

2、能够用英语进行课程学习、阅读文献和进行学术写作，能够用英语进行日常交流。

五、培养年限

攻读全日制专业学位的标准学制为 2 年，实行弹性学制，学习年限最短不低于 2 年，最长不超过 4 年。

六、学分要求和课程设置

本专业硕士留学研究生课程总学分为 30 学分，其中学位课程为 20 学分，非学位课程为 10 学分。另设教学环节。具体开设课程见下表：

Professional Master of Project Management (085239)

1. Discipline Description

The Project Management in Hohai University is a first-class discipline under Management Science and Engineering. It gives focus on the planning and management of engineering projects, it has characteristics of systematizes, comprehensiveness and complexity. The discipline of Management Science and Engineering in Hohai University was authorized to offer Master and Doctorate degrees in the first-level discipline in 1995 and 2003.Project management is a key discipline in Jiangsu Province, and it was allowed to set up postdoctoral mobile station in 2007.

2. Program Description

It aims to cultivate students into high-level, practical and versatile specialized talents with global view in project management who master the solid and wide theories and professional knowledge, understand the forefront of the engineering management, and can be engaged in works in business management, engineering construction and management, relevant government departments and other organizations. Have the ability to engage in scientific research work or to undertake specialized technical work independently, and have analyzing ability, decision-making ability and strategic awareness. The graduates are supposed to be able to adapt to the trend of globalization, to communicate between different cultures, to have strong ability of project management analysis and decision-making, and to be equipped with leadership potential of organizing and coordinating project management.

3. Research Directions

- Engineering Project Planning and Management
- Real Estate Project Development and Management
- International Engineering Management
- Logistics and Supply Chain Management

4. Application Requirements

(1) You have received the bachelor degree from the domestic and overseas universities or academic institutions accredited by the Ministry of Education.

(2) You have the ability to read and write academic papers and communicate in English.

5. Educational System and Duration

The master program is 2 years; the duration is minimum 2 years and no more than 4 years.

6. credits and Courses

A master student must take at least 30 credits of courses, including 20 credits of required course of the degree and 10 credits of Non-required course of the degree.

项目管理领域专业学位全英文留学研究生课程设置

Courses for Professional Master Students of Project Management

课程类别 Categories		课程编号 Course No	课程名称 Course Name	学时 Hours	学分 Credit	开课学期 Term	备注 Note
学位课程 20 学分 Required course of the degree 20 Credits	公共课程 General Courses	2015LXS01	*汉语 I Chinese Language I	32	2	秋 fall	必修 Required Course
		2015LXS02	汉语 II Chinese Language II	32	2	春 spring	
		2015LXS03	*中国概况 Introduction to China	32	2	秋 fall	
	专业基础课程 Major Basic Courses	2015JC19	管理学 Management	32	2	秋 fall	必修 Required Course
		2017SX67	运筹学 Operations Reasearch	32	2	秋 fall	
		2017SX68	系统工程 System Engineering	32	2	秋 fall	
	专业课程 MajorCourses	2015SX07	项目管理 Project Management	32	2	秋 fall	必修 Required Course
		2017SX52	项目采购与合同管理 Project Procurement and Contract Management	32	2	秋 fall	
		2017SX69	项目计划与控制 Project Planning and Control	32	2	秋 fall	
		2017SX53	管理信息系统 Management Information System	32	2	秋 fall	
非学位课程 10 学分 Non-required course of the degree 10 Credits		2015LXS05	*跨学科选修 Interdisciplinary Elective	32	2		必修 Required Course
		2015LXS06	*综合素质课 Comprehensive Quality	16	1		
		2017SX70	信息检索 Information retrieval	16	1	春 spring	
		2017SX71	工程伦理 Engineering Ethics	32	2	春 spring	选修 10 学分 10Credits at least
		2015SX05	战略管理 Strategic Management	32	2	春 spring	
		2017SX72	组织行为学 Organizational Behavior	32	2	春 spring	
		2015SX04	人力资源管理 Human Resources Management	32	2	春 spring	
		2017SX73	工程经济学 Engineering Economics	32	2	春 spring	
		2017SX74	工程建设法规 Engineering Construction Regulations	32	2	春 spring	
		2017SX75	管理沟通 Management Communication	32	2	春 spring	
		2017SX54	商事法律 Business Law	32	2	春 spring	
教学环节 Academic Activities		学术活动 Seminar and Conferences					必修 Required Course
		科学研究 Scientific Research					
		文献阅读与综述 Literature Reading and Reviewing					

工商管理硕士（125100）

一、专业描述

河海大学商学教育可追溯至 1915 年，属我国最早设立商科学科的高等院校。学院拥有较为完整的学科专业体系和层次，是省内设有“工商管理”博士点和博士后流动站的两所高校之一。河海大学商学院秉承“求天下学问，做工商精英”的办学理念、“河海特色、世界知名”的战略定位和“国际化、高层次、入主流、有特色”的战略路径，培养了大批工商管理精英人才。

国际工商管理硕士教育的目标是服务国家“一带一路”战略，培养高质量，可以为中国和“一带一路”国家之间搭建商业沟通桥梁、有助于中资企业在“一带一路”国家培养认同中国的工商管理人才，使他们掌握生产、财务、金融、营销、经济法规、国际商务等多学科知识和管理技能，并具有战略规划眼光和敏锐洞察力。培养过程强调的是国际化的管理实践，要求毕业生在管理过程中具备职业化的预测能力、应变能力、执行能力和领导能力，使中国企业能在风云变幻的世界市场和国际化竞争中不断取胜。其课程内容包含管理类、经济学类、会计、法律等领域的知识和能力，不仅涉及组织和领导才能培养内容，并强调企业责任和个人国际化视野并重的职业素质的提高。

二、培养目标

秉承学校“艰苦朴素、实事求是、严格要求、勇于探索”的校训和学院“求天下学问，做工商精英”的办学理念、“河海特色、世界知名”的战略定位和“国际化、高层次、入主流、有特色”的战略路径，河海大学国际 MBA 项目的培养目标是教育一批具备国际经济文化背景，把握企业实情和市场脉搏、拥有战略前瞻和国际视角、能够运筹决策

和实战操作、体现卓越素质和超群能力、具有良好职业道德和团队精神的职业经理人和企业家。

三、研究方向

1. 国际化战略与决策方向
2. 跨国公司本土化运营方向
3. 东亚市场营销方向
4. 国际工程领域方向

四、申请条件

申请人需要满足以下条件：

1.已在我国认可的海内外高校和学术机构获得学士学位者满 3 年者，或获硕士学位或博士学位者有 2 年以上工作经验。

2.能够用英语阅读文献和进行学术写作，能够用英语进行日常交流。

五、培养年限

实行弹性学制，攻读全日制专业学位研究生的标准学制为 2 年，实行弹性学制，学习年限最短不低于 2 年，最长不超过 5 年。

六、学分要求和课程设置

国际 MBA 留学生总共 62 学分，其中公共课程 6 学分、核心课 22 学分、选修课 12 学分、实践环节 10 学分、毕业论文 12 学分。课程分为学位课程和非学位课程，其中学位课程 28 学分，非学位课程 12 学分。

核心课单科总成绩在 70 分以上或加权平均成绩（考分*相应学分的综合除以 30）在 75 分以上为合格；选修课程的单科总成绩 60 分为合格。单科总成绩为出勤、作业、课程考试三个方面的综合成绩。各门课程成绩合格后可获得相应学分。

工商管理实践要求学生参加项目组织的经营模拟、管理讲座、案例研讨、管理咨询、创业创新训练、商务活动体验等活动，并在活动后提交实践报告。

MBA 在校期间必须提交一篇具有硕士学位水平的学位论文，学位论文可以是学术论文、案例分析、市场调查、行业研究、实证分析、管理咨询报告。学位论文应具有现实意义，能体现综合运用所学理论和方法解决实际问题的能力。

MBA 教学可以采取课堂教学、管理讲座、管理咨询、案例研讨、企业参访和中国文化体验等方式，学生可组成各类学习小组，进行案例讨论、文献阅读和交流。具体课程安排见课程设置表。

Professional Master of Business Administration (125100)

1. Discipline Description

As one of the earliest institution of higher learning in setting business studies, the business education of Hohai University can be traced back to 1915. Business School of Hohai University has a complete discipline system and is one of the two colleges in Jiangsu province that have doctor degree programs and postdoctoral programs of Business Administration. By sticking to the educational philosophy of "pursuing global knowledge, becoming business elites", the strategic orientation of "becoming an innovative business school with worldwide reputation" and the strategic path of "internationalization, high-level, mainstream, characteristic", Business School has cultivated a large group of elites in business administration.

The aim of International MBA education lies in three aspects. One is to foster the state strategy of "One Belt One Road". Second is to cultivate elites in helping set business exchange bridge between China and "One Belt One Road" countries and promote the national identity of China in these countries. The last is to enable elites to grasp knowledge and management skill in production, accounting, finance, marketing, economic law and international business, and possess strategic planning vision and acute insight. The cultivation of International MBA attaches great importance to the internationalization of management practice and requires graduate students possess professional prediction ability, strain capacity, executive force and leadership, which enable Chinese business to get an edge in the changeable world market and international competition. The curriculum of International MBA includes management, economics, accounting, law and so on. These courses not only cultivate the ability of organization and leadership, but also emphasize the improvements of the professional quality of laying equal stress on corporate responsibility and personal vision of internationalization.

2. Program Description

In accordance with the university motto of "hardship and simplicity, truth-seeking,

strict requirement, brave exploration", the college educational philosophy of "pursuing global knowledge, becoming business elites", strategic orientation of "becoming an innovative business school with worldwide reputation" and strategic path of "internationalization, high-level, mainstream, characteristic", the international MBA project of HoHai University aims to cultivate a group of professional managers and entrepreneurs who own international economic and cultural background, grasp the truth of business and the pulse of market with strategic prospect and international vision, and possess professional ethics and team spirit as well as superior ability of decision-making, practical operation.

3. Research Directions

- Internationalization strategy and decision- making
- Localization operation of multinational corporations
- East Asian marketing
- International engineering field

4. Application Requirements

Applicants should meet the following requirements:

(1) Obtaining the bachelor's degree for more than three years in institutions of higher learning and academic institutions at home and abroad approved by China, or obtaining master's degree or doctor's degree together with more than two years' work experience.

(2) Being capable of literature reading and academic writing in English; being capable of communicating in English.

5. Educational System and Duration

This program implements flexible educational system. The duration for a full-time professional degree graduate student is 2 years, not more than 5 years if he or she needs.

6. Credits and Courses

The total credits of the curriculum are 62, among which 6 are general course credits, 22 are core couse credits, 12 are selective course credits, 10 are

comprehensive practice credits and 12 are graduation thesis credits. Course includes compulsory course and optional course, with 28 credits and 12 credits accordingly.

The core curriculum is qualified when the total score of a course is above 70 or the weighted average score ([mark*corresponding credits]/30) is above 75. The selected curriculum is qualified when the total score of a course is above 60. The total score of a course comprehensively combines the score of attendance, homework and course test. Corresponding credit can be obtained when the score is qualified.

Business administration practice requires students attend activities such as corporation visiting and management lecture organized by the program and submit practice report after the activity.

During MBA period, students should submit a degree thesis with the level of a master's degree. The thesis can be academic thesis, case study, market research, industry research, empirical analysis and management consulting report. The thesis should be of realistic significance and reflect the comprehensive ability of applying the theories and methods and of solving practical problems.

MBA lesson can adopt the form of classroom teaching, business simulation, management lecture, business case analysis, management consulting, training of innovation and entrepreneurship, business activities, etc. Students can form various study group for case discussion, literature reading and exchange. The specific curriculum is as follows.

工商管理硕士专业学位全英文留学研究生课程设置

Courses for Professional Master Students of Business Administration

课程类别 Categories		课程编号 No.	课程名称 Course	学时 Hours	学分 Credit	开课学期 Term	备注 Note
学位课程 28 学分 Required course of the degree 28 credits	公共课程 General Courses	2015LXS01	汉语 I Chinese Language I	32	2	秋 fall	必修 Required Course
		2015LXS02	汉语 II Chinese Language II	32	2	春 spring	
		2015LXS03	中国概况 China Introduction	32	2	秋 fall	
	核心课程 Core Course	2017MBA01	管理学 Management	48	3	秋 fall	选修 22 学分 22 credits at least
		2017MBA02	经济学 Economics	48	3	秋 fall	
		2017MBA03	会计学（理论+实训） Accounting	48	3	秋 fall	
		2017MBA04	运营管理（理论+实训） Operation Management	48	3	秋 fall	
		2017MBA05	市场营销（理论+实训） Marketing	48	3	秋 fall	
		2017MBA06	人力资源管理（理论+实训） Human Resource Management	48	3	秋 fall	
		2017MBA07	公司理财（理论+实训） Corporale Finance	48	3	秋 fall	
		2017MBA08	组织行为（理论+实训） Organizational Behavior	48	3	秋 fall	
		2017MBA09	管理沟通（理论+实训） Management Communication	48	3	秋 fall	
		2017MBA10	战略管理（理论+实训） Strategic Management	48	3	秋 fall	
		2017MBA11	数据、模型与决策 Data, Modeling & Decision Making	32	2	秋 fall	
		2017MBA12	管理信息系统 Management InformationSystem	32	2	秋 fall	
选修课程 12 学分 Non-required course of the degree 12 credits	战略与决策 Strategy and decision making	2017MBA13	商事法律 Business Law	32	2	秋/春 fall/spring	选修 12 学分 12 credits at least
		2017MBA14	竞争战略与竞争情报 Competitive Strategy&Competitive Intelligence	32	2	秋/春 fall/spring	
	创新与创业 Innovation and Entrepreneurship	2017MBA15	创业管理 Venture Management	32	2	秋/春 fall/spring	
		2017MBA16	技术创新与知识产权 Technological Innovation & Knowledge Properties	32	2	秋/春 fall/spring	
		2017MBA17	创业投资 Venture Capital investment	32	2	秋/春 fall/spring	
	运营与信息化 Operation and information system	2017MBA18	电子商务 Electronic Commerce	32	2	秋/春 fall/spring	
		2017MBA19	服务管理 Service Management	32	2	秋/春 fall/spring	
	组织与人力	2017MBA20	绩效与薪酬管理 Performance and Salary Management	32	2	秋/春 fall/spring	

	资源 Organization and human resource	2017MBA21	组织发展与变革 Organization development and innovation	32	2	秋/春 fall/spring	
		2017MBA22	人力资源培训与开发 Training and exploiting on human resource	32	2	秋/春 fall/spring	
	市场营销 Marketing	2017MBA23	消费行为 Marketing behavior	32	2	秋/春 fall/spring	
		2017MBA24	国际商务 International Business	32	2	秋/春 fall/spring	
		2017MBA25	品牌管理 Brand Management	32	2	秋/春 fall/spring	
	财务分析与控制 financial analysis and management	2017MBA26	公司内部控制与风险管理 Internal control and risk management in corporation	32	2	秋/春 fall/spring	
		2017MBA27	公司税收筹划 Corporation tax revenue management	32	2	秋/春 fall/spring	
		2017MBA28	公司财务分析 Corporate Finance Analysis	32	2	秋/春 fall/spring	
	金融领域选修课 Financial optional courses	2017MBA29	商业银行管理 Commercial bank management	32	2	秋/春 fall/spring	
		2017MBA30	投资实务 Investment Practice	32	2	秋/春 fall/spring	
		2017MBA31	金融行业专题 Topics on Finance	32	2	秋/春 fall/spring	
	工程领域选修课 Engineering field optional courses	2017MBA32	项目采购与合同管理 project procurement and contract management	32	2	秋/春 fall/spring	
		2017MBA33	项目管理 Project Management	32	2	秋/春 fall/spring	
		2017MBA34	项目计划与控制 Project Planning and Control	32	2	秋/春 fall/spring	
		2017MBA35	工程伦理 Engineering Ethics	32	2	秋/春 fall/spring	
		2017MBA36	水利电力行业专题 Topic on Water Industry	32	2	秋/春 fall/spring	
	游艇领域选修课 Yacht field optional courses	2017MBA37	游艇俱乐部管理 The yacht club management	32	2	秋/春 fall/spring	
		2017MBA38	游艇商事活动策划与管理 The yacht commercial event planning and management	32	2	秋/春 fall/spring	
		2017MBA39	游艇行业专题 Topics on Yacht Industry	32	2	秋/春 fall/spring	
		跨学科选修课 Interdisciplinary optional courses 商学院其它类型的研究生课程 Other Optional Courses in Business School		32	2		
综合实践环节 10 学分 Practice Activities 10 credits	综合实践环节 Comprehensive practice	2017MBA40	经营模拟 Business Simulation	32	2	秋/春 fall/spring	选修 10 学分 10 credits at least
		2017MBA41	管理讲座 Management Lecture	32	2	秋/春 fall/spring	
		2017MBA42	案例研讨 Business Case Analysis	32	2	秋/春 fall/spring	
		2017MBA43	管理咨询 Management Consulting	32	2	秋/春 fall/spring	
		2017MBA44	创业创新训练 Training of Innovation and Entrepreneurship	32	2	秋/春 fall/spring	
		2017MBA45	商务活动体验 Business Activities	32	2	秋/春 fall/spring	

学位论文 12 学分 Degree Thesis12 credits	192	12		
合计 62 学分 Total62credits	992	62		

授课时间：集中授课。

实践环节时间：每学期适时安排管理讲座、管理咨询、案例研究、企业参访、中国文化体验、跨文化交流、中国商务活动体验、中国传统文化讲座等实践。

Course arrangement: intensive course.

Practice arrangement: every term will elaborately arrange practice such as management lecture, management consulting, case analysis, corporation visiting, Chinese culture experience, cross-cultural exchange, China business activities and Chinese traditional culture lecture.

公共管理（125200）

一、专业描述

公共管理硕士专业学位教育从1924年美国锡拉丘兹大学马克斯韦尔公民与公共事务学院率先开展后，在世界范围内蓬勃发展，目前已经成为很多国家培养高层次应用型公共管理人才的主要途径之一。为适应我国公共管理事业发展的需要，我国公共管理硕士专业学位教育自1998年起步，迄今已经积累了相当的办学基础和经验。自创办以来，公共管理硕士专业学位教育报考人数不断增加，涵盖面持续扩大，发展前景广阔。

2010年，我校获得中国第五批公共管理硕士（MPA）专业学位培养授权，随后我校MPA专业学位教育不断加强人才培养条件建设，完善课程体系，深化教学方法改革，形成了适应公共管理专业学位硕士研究生需求的培养体系，，在行政管理与公共事务管理、水利行政管理、征地拆迁与移民管理、资源与环境管理、政府项目管理等研究方向上形成了特色。

我校 MPA 专职导师 37 人，其中教授 14 人，副教授 20 人；博士生导师 10 人，具有博士学位的教师 31 人；兼职导师 15 人，主要为水利、移民、环境、土地、社会保障等领域的政府部门领导和专家。已培养专业学位硕士研究生 200 多人。

二、培养目标

公共管理专业硕士（MPA）旨在培养培养具有当代国际公共管理理论、技术、方法等学科素养，掌握系统的公共管理理论、知识和方

法，具备从事公共管理与公共政策分析的能力，能够综合运用管理、政治、经济、法律、现代科技等方面知识和科学研究方法解决公共管理实际问题的德才兼备的高层次、应用型、复合型公共管理专门人才。

MPA 培养方案的设计要为学生提供良好的学术环境，学生通过了解学习当代国际公共管理理论前沿，探索新知识和应用公共管理原理解决各国公共管理领域的现实问题。鼓励学生应用获得的知识和技能发展解决公共管理问题的能力，为推进各国公共管理实践深入发展作出新贡献。

三、研究方向

公共管理专业硕士（MPA）全英文留学生培养计划包括以下主要研究方向：

1.行政管理与公共事务管理（Administration and Public Affairs Management）。

2. 社会保障（Social Security）。

3. 资源与环境管理（Resource and Environment Management）。

4. 移民管理（Resettlement Management）。

四、申请条件

公共管理专业型硕士生申请人需要满足以下条件：

1、已在我国认可的海内外高校或学术机构获得本科学位者。

2、能够用英语进行课程学习、阅读文献和进行学术写作，能够用英语进行日常交流。

五、培养年限

攻读 MPA 专业型硕士学制为 3 年，实行弹性学制，实行弹性学制，学习年限最短不低于 2 年，最长不超过 5 年。

六、学分要求和课程设置

公共管理专业型硕士生需要通过完成不少于 28 学分的课程学习，其中学位课程学分不低于 20 学分，其余为非学位课程。公共管理专业型硕士生还必须结合研究课题完成一篇硕士论文，并通过答辩。课程设置如下表。

Professional Master of Public Administration (125200)

1. Discipline Description

The professional Master of Public Administration program has already been one of the most important avenues for many countries to educate and cultivate high-level managers or practical talents since the 1924 program established at the Maxwell School of Citizenship and Public Affairs of Syracuse University. To satisfy national needs of high-level public administration talents and health development of education system, our nation has started to establish the master program of public administration since 1998. To date, this program has been established and has educated thousands of excellent talents in public administration. Due to the prominent influence and distinct feature of the master program of public administration, an increasingly growing number of excellent students competitively register the entrance examination. The rapid development and international impact of the master program of public administration at Hohai University have been evidenced in a range of fields, including but not limited to the promising prospects of employment or career development and promotion, the coverage of research fields, the scale of excellent students, and the reputations in public administration.

Hohai University obtained the fifth authorization on professional master of public administration in 2010, and started to recruit student in 2011. Through several years' construction and development, our professional scheme and system that are optimal to cultivating professional master of public administration have been well-established. This significantadvance is not limited to one dimension, but covers all aspects of the education system of the professional master program of public administration, involving the teaching and research facilities, curriculum provision and enrichment, teaching methods reforms, and the students' cultivating quality. The professional master program of public administration has established its reputation and is characterized in "public affairs &administration", "public administration involving water", "land acquisition, demolition and resettlement management",

“resource and environmental management”, “government project management” and so on. Also, important achievements have been obtained in related fields.

The discipline of public administration has 37 faculties, including over 14 professors and 20 associate professors. Thirty-one of them have the doctor’s degree. The discipline of public administration has 10 doctoral supervisors and 15visiting professors. Most of the visiting professors are invited from government officials and experts that are specialized in hydrology, resettlement, environment, land and social security agency. The reasonably structured staff arrangement is key guarantee for cultivating high-level MPA, occupation-appropriate, market-satisfied practical talents and promising students motivated to further study. To date, more than 200 postgraduate students have completed their MPA programs in Hohai University.

2. Program Description

The program of professional master in public administration (MPA) aims at cultivating excellent academic individuals with comprehensive knowledge and theories of international public administration, who are capable of getting insight into the status and development trend of public administration science, and have good international visions, honest and team-work spirits. The programs aims at training top-level, applied and compound academic researchers who are skilled in dealing with public management issues and public policy analyses, and integrating the professional knowledge and specialized skills on management science, politics, economics, law and modern technology to solve practical problems in public administration field. The program is designed to provide students with intellectual guidance and environment to know the frontier of international public management and its trends of theoretical development, to master the knowledge, principles and multiple skills in public administration, to expertly resolve practical or theoretical issues relevant with public management via research project supervised by experienced professors or experts. Through the program, students have opportunities to develop their problem-solving ability with new knowledge and skills, and to make their own contributions to their research fields.

3. Research Directions

The Master of Public Administration (MPA) program is mainly oriented (but not limited) to the following research areas:

- Administration and Public Affairs Management.
- Social Security.
- Resource and Environment Management.
- Resettlement Management.

4. Application Requirements

(1) You have received the bachelor degree from the domestic and overseas universities or academic institutions accredited by the Ministry of Education.

(2) You have the ability to read and write academic papers and communicate in English.

5. Educational System and Duration

The master program is 3years; the duration is minimum 2 years and no more than 5 years.

6. Credits and Courses

A MAPstudent must take at least 28 credits of courses, including minimum20 credits of required course of the degree and the rest credits of Non-required course of the degree.

A research thesis is also required course of the degree for obtaining the academic degree and the students must successfully defend their thesis. A list of the courses for master program in the discipline of Public Management is presented below.

公共管理专业硕士全英文留学研究生课程设置

Courses for Professional Master Students of Public Administration

课程类别 Categories		课程编号 No	课程名称 Course	学时 Hours	学分 Credit	开课学期 Term	备注 Note
学位课程 20 学分 Required course of the degree 20 Credits	公共课程 General Courses	2015LXS01	汉语Ⅰ Chinese Language Ⅰ	32	2	秋 fall	必修 Required Course
		2015LXS02	汉语Ⅱ Chinese LanguageⅡ	32	2	春 spring	
		2015LXS03	中国概况 Introduction to China	32	2	秋 fall	
	基础理论课程 Discipline Basic Courses	2015JC12	公共经济学 Public Economics	32	2	秋 fall	选修 8 学分 8 Credits at least
		2015JC13	公共管理学 Public Management	32	2	春 spring	
		2015JC14	公共政策分析 Public Policy Analysis	32	2	春 spring	
		2015JC15	社会研究方法 Methods of Social Research	32	2	秋 fall	
		2015JC16	非政府组织管理 Nongovernment Organization	32	2	秋 fall	
		2017GG01	组织管理理论 Public Organization Theory	32	2	秋 fall	
	专业课程 Major Courses	2015GG01	土地资源管理理论与方法 Theories and Method of Land Resource Management	32	2	春 spring	选修 6 学分 6 Credits at least
		2015GG02	移民政策与管理 Resettlement Politics and Management	32	2	春 spring	
		2015GG03	公共人力资源管理 Public Human Resource Management	32	2	春 spring	
		2015GG04	社会保障 Social Security	32	2	春 spring	
		2015GG05	电子政务 E- Public Affairs	32	2	秋 fall	
非学位课程 9 学分 Non-required course of the degree 9 Credits		2015LXS05	*跨学科选修 Interdisciplinary Elective	32	2		必修 Required Course
		2015LXS06	*综合素质课 Comprehensive Quality	16	1		
		2015GG07	项目评价与管理 Evaluation and Management of the Project	32	2	秋 fall	选修 6 学分 6 Credits at least
		2015GG08	资源与环境经济学 Environment and Natural Resource Economics	32	2	春 spring	
		2015GG09	社会评价 Social Assessment	32	2	秋 fall	
		2015GG10	应用心理学 Applied Psychology	32	2	春 spring	
		2015GG11	发展研究 Development Study	32	2	秋 fall	
		2015GG12	社会福利与社会救助 Social Welfare and Social Relief	32	2	秋 fall	
教学环节 Academic Activities		学术活动 Seminar and Conferences					必修 Required Course
		科学研究 Scientific Research					
		文献阅读与综述 Literature Reading and Reviewing					