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全英文留学学术型硕士研究生培养方案修订目录

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1 (Migration and Resettlement Sociology)

2 (Rural and Urban Sociology)

3 (Environmental Sociology)

4 (Social Assessment)

5 (Social Policy and Social Governance)

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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.

Courses for Doctoral Students of Sociology

Categories		No	Course	Hours	Credit	Term	Note
11 Required course of the degree 11Credits	General Courses	2015LXS01	* Chinese Language	32	2	fall	RequiredCourse
		2015LXS03	* Introduction to China	32	2	fall	
	Basic Courses	2015JC20	Social Theory	32	2	fall	4 4 Credits at least
		2015JC15	Social Research Methodology	32	2	fall	
	Major Courses	2017GG09	Modern Science of the Discipline	16	1		3 3Credits at least
		2015GG16	Migration Sociology	32	2	fall	
		2015GG17	Environmental Sociology	32	2	fall	
		2017GG07	Anthropological Theories and Methods	32	2	fall	
4 Non-required course of the degree 4 Credits		2015LXS05	* Non-required course of the degree of multi-disciplines	32	2		2 2 Credits at least
		2015GG09	Social Assessment	32	2	fall	
		2017GG08	Study on Globalization and Development	32	2	fall	
		2015LXS04	* Second Foreign Language	32	2	spring	RequiredCourse
Academic Activities		Seminar and Conferences					RequiredCourse
		Scientific Research					
		Literature Reading and Reviewing					

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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.

Courses for Doctoral Students of Engineering Mechanics

Categories		No	Course	Hours	Credit	Term	Note
11 Required course of the degree 11 Credits	General Courses	2015LXS01	* Chinese Language	32	2	fall	RequiredCourse
		2015LXS03	* Introduction to China	32	2	fall	
	Basic Courses	2015JC02	Applied Mathematics	64	4	fall	3 3Credits at least
		2015JC05	Modern Methods in Partial Differential Equations	32	2	fall	
		2015JC07	Reliability Analysis	32	2	fall	
	Major Courses	2017LC11	Modern Science of the Discipline	32	2		RequiredCourse
		2015LC01	Plasticity & constitutive Modelling of Engineering Materials	32	2	fall	2 2 Credits at least
		2015LC02	Advanced Computational Mechanics	32	2	spring	
4 Non-required course of the degree 4 Credits		2015JC10	Structural Dynamics	32	2	spring	2 2 Credits at least
		2015LXS07	The Art of Scientific Presentation and Writing in English	32	2	spring	
		2015LXS04	* Second Foreign Language	32	2		RequiredCourse
Academic Activities		Seminar and Conferences					RequiredCourse
		Scientific Research					
		Literature Reading and Reviewing					

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1 Power System Operation and Control

2 Automation of Distribution Power Systems

3 Fault Diagnosis and Information Processing for Electrical Equipments

4 Novel AC/DC Electrical Drive System

5 Renewable Energy Conversion System

6 Overvoltage and Protection of Power System

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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.

Courses for Doctoral Students of Electrical Engineering

Categories		No	Course	Hours	Credit	Term	Note
11 Required course of the degree 11Credits	General Courses	2015LXS01	* Chinese Language I	32	2	fall	Required Course
		2015LXS03	* Introduction to China	32	2	fall	
	Major BasicCourses	2015JC03	Numerical Analysis	48	3	fall	Required Course
		2015JC04	Optimization Methods	32	2	fall	
	Major Courses	2015ND01	Power System Analysis & Control	32	2	spring	2 2Credits at least
		2015ND02	Power System Modeling	32	2	spring	
		2015ND03	Modern Power Systems and Clean Energy	32	2	spring	
4 Non-required course of the degree 4 Credits		2015LXS07	The Art of Scientific Presentation and Writing in English	32	2	fall	Required Course
		2015JC25	Methods of Programming	32	2	fall	2 2Credits at least
		2015JC26	Computer-Aided Design	32	2	spring	
		2015LXS05	* Interdisciplinary Elective	32	2		
Academic Activities		Seminar and Conferences					Required Course
		Scientific Research					
		Literature Reading and Reviewing					

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2 (Communication and Information System)

3 (Telemetering and Information Network)

4 (Microwave Technology and Its application)

5 (Intelligent Information System)

6 (Mobile Telecommunications System)

7 (Internet of things and its Application)

8 Artificial Intelligence and Big Data

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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.

Courses for Doctoral Students of Information and Communication Engineering

Categories		No	Course	Hours	Credit	Term	Note
11 Required course of the degree 11 Credits	General Courses	2015LXS01	* Chinese Language	32	2	fall	RequiredCourse
		2015LXS03	* Introduction to China	32	2	fall	
	Basic Courses	2015JC02	Applied Mathematics	64	4	fall	4 4 Credits at least
		2015JC08	Matrix Theory	32	2	fall	
	Major Courses	2017JX27	Modern Science of the Discipline	16	1	fall	RequiredCourse
		2015JX03	Modern Digital Signal Processing	32	2	fall	2 2 Credits at least
		2015JX02	Video Image Processing	32	2	fall	
		2017CZ04	Image Processing and Analysis	32	2	fall	
		2017CZ01	Mobile Telecommunications	32	2	fall	
4 Non-required course of the degree 4 Credits		2015JX04	Digital Communication	32	2	spring	4 4 Credits at least
		2017JX17	New technology for pattern recognition	32	2	fall	
		2015LXS07	Academic Paper Writing	32	2	spring	
		2017CZ02	Intelligent Computing	32	2	fall	
		2015LXS05	Interdisciplinary Optional Data Management and Analysis Technology ---------- or ---------- Artificial Neural Networks ---------- or ---------- Distributed Computing & systems	32	2		
Academic Activities		Seminar and Conferences					RequiredCourse
		Scientific Research					
		Literature Reading and Reviewing					

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1 Novel Software Technologies

2 Data & Knowledge Engineering

3 Information Security & Trusted Computing

4 Intelligent Information Processing

5 Web Semantic Web & Web Science

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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.

Courses for Doctoral Students of Computer Science and Technology

Categories		Course No	Course Name	Hours	Credits	Term	Note
11 Required course of the degree 11Credits	General Courses	2015LXS01	* I Chinese Language I	32	2	fall	Required Course
		2015LXS03	* Introduction to China	32	2	fall	
	Major Courses	2017JX27	Modern Science of the Discipline	16	1	fall	Required Course
		2017JX28	Data Management & Analysis Technologies	32	2	fall	6 6 Credits at least
		2017JX19	Advanced Logic	32	2	fall	
		2017JX20	Computability & Computational Complexity	32	2	fall	
		2017JX21	Distributed Computing & Systems	32	2	fall	
		2017JX22	Visualization in Scientific Computing	32	2	spring	
		2017JX23	Digital Media Technology	32	2	spring	
4 Non-required course of the degree 4 Credits		2015LXS07	Academic Paper Writing	32	2	fall	RequiredCourse
		2017JX24	Web Knowledge Representation on the Web	32	2	fall	2 2 Credits at least
		2015LXS05	Interdisciplinary Elective	32	2		
		2017JX25	Artificial Neural Networks	32	2	spring	
		2017JX26	Novel Software Architecture	32	2	spring	
		2017JX16	Model Checking	32	2	fall	
Academic Activities	Seminar and Conferences						Required Course
	Scientific Research						
	Literature Reading and Reviewing						

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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 re

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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.

Courses for Doctoral Students of Hydrology and Water Resources

Categories		No	Course	Hours	Credit	Term	Note
11 Required course of the degree 11 Credits	General Courses	2015LXS01	* Chinese Language	32	2	fall	RequiredCourse
		2015LXS03	* Introduction to China	32	2	fall	
	Basic Courses	2015JC02	Applied Mathematics	64	4	fall	4 4Credits at least
		2015JC05	Modern Methods in PDE	32	2	fall	
	Major Courses	2017SW02	Modern Science of the Discipline	16	1	Spring	RequiredCourse
		2015SW01	Distributed Hydrologic Model	32	2	Spring	2 2Credits at least
		2015SW02	Higher Groundwater Dynamics	32	2	Spring	
4 Non-required course of the degree 4 Credits		2015SW03	Advanced Techniques for Collection of Water Information	48	3	Spring	4 4Credits at least
		2015LXS07	The Art of Scientific Presentation and Writing in English	32	2	fall spring	
		2015LXS05	A course in other disciplines	32	2		
		2015JC25	Methods of Programming	32	2	Fall	
Academic Activities		Seminar and Conferences					RequiredCourse
		Scientific Research					
		Literature Reading and Reviewing					

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1 River Management, Aquatic Ecology and Environment

2 Theory and Applications of Engineering Hydraulics

3 Flow, Sediment Transportation and Its Application in River Engineering

4 Engineering Seepage and Ground Water Environment

5 Computational Hydraulics and Hydro informatics

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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.

Courses for Doctoral Students of Hydraulics and River Dynamics

Categories		No	Course	Hours	Credit	Term	Note
11 Required course of the degree 11 Credits	General Courses	2015LXS01	* Chinese Language	32	2	fall	Required Course
		2015LXS03	* Introduction to China	32	2	fall	
	Basic Courses	2015JC02	Applied Mathematics	64	4	fall	4 4 Credits at least
		2015JC03	Numerical Analysis	48	3	fall	
		2015JC04	Optimization Methods	32	2	fall	
	Major Courses	2017SD13	Special Topics on Water Conservancy	16	1	Spring	Required Course
		2017SD14	Advanced River Mechanics	32	2	Spring	2 2 Credits at least
		2017SD16	Numerical Simulation Methods and Applications for Engineering Turbulence	32	2	fall	
		2017SD04	Engineering Hydrodynamics	32	2	Spring	
		2017SD15	Dynamics of Fluids in Porous Media	32	2	Spring	
4 Non-required course of the degree 4 Credits		2015LXS07	The Art of Scientific Presentation and Writing in English	32	2	Fall/Spring	Required Course
		2015LXS05	A course in other disciplines	32	2		Required Course
Academic Activities		Seminar and Conferences					Required Course
		Scientific Research					
		Literature Reading and Reviewing					

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1. Safety Monitoring

Theories, Methods and Techniques for High Dams and Their Foundations

2. Computation Theories and Experimental Techniques for Dam Designs

3. High Slopes and Underground Engineering

4. Sluices, Ship Locks and Water Transport Structures

5. Materials and Construction for Hydraulic Concrete Structures

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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.

Courses for Doctoral Students of Hydraulics Structure Engineering

Categories		No	Course	Hours	Credit	Term	Note
11 Required course of the degree 11 Credits	General Courses	2015LXS01	Chinese Language	32	2	fall	RequiredCourse
		2015LXS03	Introduction to China	32	2	fall	
	Basic Courses	2015JC02	Applied Mathematics	64	4	Spring	4 4 Credits at least
		2015JC03	Numerical Analysis	48	3	fall	
	Major Courses	2017SD13	Special Topics on Water Conservancy	16	1	Spring	RequiredCourse
		2017SD17	Safety Monitoring Theory and Its Application for Hydraulic Structures	32	2	Spring	2 2 Credits at least
		2017SD18	The Discrete Element Method and Mechanics of Granular Materials	32	2	Spring	
		2017SD19	Safety Management of water Conservancy Project	32	2	fall	
4 Non-required course of the degree 4 Credits		2015LXS07	The Art of Scientific Presentation and Writing in English	32	2	fall, spring	RequiredCourse
		2015LXS05	A course in other disciplines	32	2		
Academic Activities		Seminar and Conferences					RequiredCourse
		Scientific Research					
		Literature Reading and Reviewing					

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1. Water Resources and Hydropower System Planning and Development Strategy

2. / Hydraulics/Structure of Hydropower Plant and Pump Station

3. Hydraulic Transient and Safety Control of Hydraulic Unit

4. Technique of Pumped-Storage Project and Renewable Energy

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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.

Courses for Doctoral Students of Water Conservancy and Hydropower Engineering

Categories		No	Course	Hours	Credit	Term	Note
11 Required course of the degree 11 Credits	General Courses	2015LXS01	* Chinese Language	32	2	fall	RequiredCourse
		2015LXS03	* Introduction to China	32	2	fall	
	Basic Courses	2015JC02	Applied Mathematics	64	4	fall	4 4 Credits at least
		2015JC03	Numerical Analysis	48	3	fall	
		2015JC04	Optimization Methods	32	2	fall	
	Major Courses	2017SD13	Special Topics on Water Conservancy	16	1	Spring	RequiredCourse
		2015SD15	Fluid Transients II	32	2	Spring	2 2 Credits at least
		2015SD16	New Theory of Water Resources and Hydropower System Planning	32	2	Spring	
4 Non-required course of the degree 4 Credits		2015SD17	Detection & Fault Diagnosis of Hydroelectric Units	32	2	Spring	2 2 Credits at least
		2015LXS07	The Art of Scientific Presentation and Writing in English	32	2	Fall or Spring	
		2015LXS05	A course in other disciplines	32	2		RequiredCourse
Academic Activities		Seminar and Conferences					RequiredCourse
		Scientific Research					
		Literature Reading and Reviewing					

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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
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Courses for DoctoralStudents of Geological Resource and Geological Engineering

Categories		Course No	Course Name	Hours	Credits	Term	Note
11 Required course of the degree 11 Credits	General Courses	2015LXS01	* I Chinese Language I	32	2	fall	Required Course
		2015LXS03	* Introduction to China	32	2	fall	
	Major Basic Courses	2015JC01	Mathematical Physical Equation	32	2	spring	4 4 Credits at least
		2015JC02	Applied Mathematics	32	4	spring	
		2015JC03	Numerical Analysis	48	3	fall	
		2015JC04	Optimization Methods	32	2	fall	
	Major Courses	2017DX13	Frontier Seminars on Geological Resources and Engineering	16	1	spring	3 3Credits at least
		2015DX20	Applied Geophysics	32	2	spring	
		2015DX21	Rock Mass Groundwater Dynamics	32	2	spring	
		2015DX22	Theory and Method of Geological Stability	32	2	spring	
4 Non-required course of the degree 4 Credits		2015LXS05	* A Course in Other Disciplines	32	2		Required Course
		2015DX23	Technology of Geophysical Exploration & well logging	32	2	spring	2 2Credits at least
		2015DX24	AdvancedHydrogeochemistry	32	2	spring	
		2015DX25	Theory and Method of Geological Disaster Prevention and Control	32	2	spring	
		2017DX14	Geo-Environmental Engineering	32	2	spring	
Academic Activities		* Seminars and Conferences					Required Course
		* Scientific Research					
		* Literature Reading and Review					

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1. Irrigation and Drainage Engineering

2. Protection of Agricultural Soil and Water Environment

3. Soil and Water Conservation

4. Bio-Environmental Engineering

5. Planning and Utilization of Agricultural Soil and Water

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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.

Courses for Doctoral Students of Agricultural Engineering

Categories		No	Course	Hours	Credit	Term	Note
11 Required course of the degree 11 Credits	General Courses	2015LXS01	* Chinese Language	32	2	fall	Required Course
		2015LXS03	Introduction to China	32	2	fall	
	Basic Courses	2015JC02	Applied Mathematics	64	4	fall	4
		2015JC01	Partial Differential Equations	32	2	Spring	4 Credit at least
	Major Courses	2015SD18	Special Topics on Agricultural engineering	16	1	Spring	Required Course
		2015SD19	Modern Theory of Irrigation and Drainage	32	2	Spring	2
		2015SD20	Modern Agricultural Soil and Water Environment	32	2	Spring	2Credits at least
4 Non-required course of the degree 4 Credits		2015LXS07	The Art of Scientific Presentation and Writing in English	32	2	Fall or Spring	Required Course
		2015LXS05	A course in other disciplines	32	2		
Academic Activities		Seminar and Conferences					Required Course
		Scientific Research					
		Literature Reading and Reviewing					

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1. (Water Resource Protection and Bioremediation)
2. (Environmental Water Conservancy and Ecological Hydraulics)
3. (Environmental System Planning and Complex Assessment)
4. (Water Pollution Control and Water Treatment Engineering)
5. (Solid Waste Disposal and Resourced Utilization)

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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.

Courses for Doctoral students of Environmental Science and Engineering

Categories		No	Course	hours	credit	Term	Note
11 Required course of the degree 11 Credits	General Courses	2015LXS01	Chinese Language	32	2	fall	RequiredCourse
		2015LXS03	Introduction to China	32	2	fall	
	BasicCourses	2015JC02	Applied Mathematics	32	4	fall	2 2Credits at least
		2015JC05	Modern Methods in Partial Differential Equations	32	2	fall	
	MajorCourses	2015HJ07	Special Topic on Environmental Science and Technology	16	1	spring	RequiredCourse
		2015HJ06	Bioremediation Theory and Technology	32	2	fall	4 4Credits at least
		2015HJ04	Water Pollution Control Engineering	32	2	fall	
4 Non-required course of the degree 4 Credits		2015LXS07	The Art of Scientific Presentation and Writing in English	36	2	spring	RequiredCourse
		2015LXS05	A course in other disciplines	36	2		
Academic Activities		Seminar and Conferences					RequiredCourse
		Scientific Research					
		Literature Reading and Reviewing					

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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.

Courses for Doctoral Students of Resettlement Science and Management

Categories		No	Course	Hour	Credit	Term	Note
11 Required course of the degree 11 Credits	General Courses	2015LXS01	* Chinese Language I	32	2	fall	Required Course
		2015LXS03	* Introduction to China	32	2	fall	
	Basic Courses	2015JC22	Advanced Management	32	2	fall	Required Course
		2015JC23	Advanced Economics	32	2	fall	
	Major Courses	2015JC24	Modern Science of the Discipline	16	1	Spring	Required Course
		2015GG15	Resettlement Policy and Implementation	32	2	Spring	
4 Non-required course of the degree 4 Credits		2015LXS05	* A course in other Disciplines	32	2		4 4 Credits at least
		2015GG19	Resettlement Economics	16	1	fall	
		2015GG20	Resettlement System Engineering	16	1	fall	
		2015GG13	Resettlement Management	16	1	fall	
Academic Activities		Seminar and Conferences					Required Course
		Scientific Research					
		Literature Reading and Reviewing					

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1. (Strategy and Technology Management)

2. (Water conservancy and Hydropower and Technical Economy of Resources)

3. (Business Operation and marketing)

4. (Technical Innovation and Knowledge Management)

5. (Human Resource and Organizational Management)

6. (Service outsourcing and transnational operations)

7. (Accounting and Financial Management)

8. (Yacht management)

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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.

Courses for Doctoral Students of Business Administration

Categories		No	Course	Credit	Credit	Term	Note
11 Required course of the degree 11 Credits	General Courses	2015LXS01	* Chinese	32	2	fall	Required Course
		2015LXS03	* Introduction to China	32	2	fall	
	Basic Courses	2017SX33	Research Methods of Management	32	2	Spring	4 4 Credits at least
		2017SX34	Theory and Method of Decision Making	32	2	fall	
		2017SX35	Operations Research and Optimization Methods	32	2	fall	
	Major Courses	2017SX36	Academic Frontier Seminar of Business Management Discipline	16	1	spring	2 2Credits at least
		2017SX37	Strategy, Technology and Management	32	2	fall	
		2017SX38	Technology Economics and Management in Water, Hydropower and Resources	32	2	spring	
		2017SX39	Technology Innovation and Knowledge Management	32	2	spring	
		2017SX40	Human Research and Organization Management	32	2	fall	
		2017SX41	Business Management and Marketing	32	2	fall	
		2017SX42	Theory and Methods of Advanced Accounting	32	2	fall	
		2017SX64	Theory of Financial Management	32	2	fall	
		2017SX44	Service Outsourcing and Transnational Management	32	2	spring	
		2017SX45	Yacht Management	32	2	fall	
4 Non-required course of the degree 4 Credits		2015LXS04	* Second language (except for the native language and Chinese)	32	2	Spring	Required Course
		2017SX46	Competitive Intelligence	32	2	fall	4 4 Credits at least
		2017SX47	Modern Economics	32	2	spring	
		2017SX48	Marketing Behavior	32	2	fall	
		2015LXS05	* Interdisciplinary Elective Courses	32	2		
Academic Activities		Seminar and Conferences contain the lecture of doctoral advisors					Required Course
		Scientific Research					
		Literature Reading and Reviewing					

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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.

Courses for MasterStudents of Theory of Marxism

Categories		No	Course	Hours	Credit	Term	Note
19 Required course of thedegree 19Credits	General Courses	2015LXS01	Chinese Language	32	2	fall	RequiredCourse
		2015LXS02	Chinese Language	32	2	spring	
		2015LXS03	Introduction to China	32	2	fall	
	Discipline BasicCourses	2015MY01	Classic Texts in Marxism	48	3	spring	RequiredCourse
		2015JC21	History of Western Philosophy	32	2	spring	
		2015JC15	Methodology of Social Science	32	2	spring	
	Major BasicCourses	2015MY06	History of Marxism	32	2	spring	4 4 Credits at least
		2015MY07	History of Critical Theory	32	2	spring	
	Major Courses	2015MY08	Marxism in China	32	2	spring	2 2Credits at least
9 Non-required course of the degree 9 Credits		2015LXS05	A course in other disciplines	32	2		RequiredCourse
		2015LXS06	* Comprehensive Quality	18	1		
		2015LXS07	The Art of Scientific Presentation and Writing in English	32	2	fall spring	6 6 Credits at least
		2015MY09	Review of Literature	32	2	spring	
		2015MY10	Culture Studies	32	2	spring	
Academic Activities		Seminar and Conferences					Required Course
		Scientific Research					
		Literature Reading and Reviewing					

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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

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.

Courses for Master Students of Mathematics

Categories		No	Course	Hours	Credit	Term	Note
18 Required course of the degree 18 Credits	General Courses	2015LXS01	* Chinese Language I	32	2	Fall	Required Course
		2015LXS02	* Chinese Language II	32	2	Spring	
		2015LXS03	* Introduction to China	32	2	Fall	
	Discipline Basic Courses	2015JC03	Numerical Analysis	48	3	Fall	Required Course
		2015JC01	Equations of Mathematical Physics	32	2	Spring	
	Major Basic Courses	2015JC02	Applied Mathematics	64	4	Spring	Required Course
	Major Courses	2015JC04	Optimization Methods	32	2	Fall	Required Course
		2017LX01	, Fourier Analysis, Wavelets, and Applications	32	2	Spring	Optional Course
		2017LX02	Computational Geometry	32	2	Spring	Optional Course
10 Non-degree courses of the degree Course 10 Credits		2015LXS05	* Interdisciplinary Elective	32	2		Required course
		2015LXS06	* Comprehensive Quality	16	1		Required Course
		2015LC03	Finite Element Method	48	3	Fall	Required Course
		2015LC02	Advanced Computational Mechanics	32	2	Spring	
		2015LXS07	The Art of Scientific Presentation and Writing in English	32	2	/ Spring/ Fall	

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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.

Courses for Master Students of Materials Science and Engineering

Categories		No	Course	Hours	Credits	Term	Note
18 Required course of the degree 18 Credits	General Courses	2015LXS01	* Chinese Language I	32	2	fall	Required Course
		2015LXS02	Chinese Language II	32	2	spring	
		2015LXS03	* Introduction to China	32	2	fall	
	Major Basic Courses	2015JC01	Partial Differential Equations of Mathematical Physics	32	2	fall	Required Course
		2015JC03	Numerical Analysis	48	3	fall	
	Major Courses	2017LC01	Physical Chemistry of Materials	48	3	fall	8 8 Credits at least
		2017LC02	Structure and properties of Materials	32	2	fall	
		2017LC03	Modern Analytical Methods for Materials	32	2	fall	
		2017LC04	Advanced Materials Science	32	2	fall	
		2017LC05	Physical Metallurgy	48	3	spring	
		2017LC06	Functional Polymers	32	2	spring	
11 Non-required course of the degree 11 Credits		2015LXS05	* Interdisciplinary Elective	32	2		Required Course
		2015LXS06	* Comprehensive Quality	16	1		
		2015LXS07	The Art of Scientific Presentation and Writing in English	32	2	fall	
		2017LC07					8 8 Credits at least

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.

Courses for Master Students of Information and Communication Engineering

Categories		No	Course	Hours	Credit	Term	Note
19 Required course of the degree course 19 Credits	General Courses	2015LXS01	* Chinese Language	32	2	fall	RequiredCourse
		2015LXS02	Chinese Language	32	2	spring	
		2015LXS03	* Introduction to China	32	2	fall	
	Discipline Basic Courses	2015JC08	Matrix Theory	48	3	fall	
		2015JC04	Optimization Methods	32	2	fall	
	Major BasicCourses	2015CZ01	Information Theory and Coding (Bilingual)	32	2	fall	4 4 Credits at least
		2017JX01	Fundamentals of Communication Networks	32	2	fall	
		2015JX03	Modern Digital Signal Processing	32	2	fall	
	Major Courses	2015CZ02	Modern Communication Technology	32	2	spring	4 4 Credits at least
		2015JX04	Digital Communication	32	2	spring	
		2015CZ03	Sensor Networks Technology	32	2	spring	
		2015JX02	Video Image Processing	32	2	fall	
		2017CZ01	Mobile Telecommunications	32	2	fall	
		2017CZ02	Intelligent Computing	32	2	fall	
		2017CZ03	Bionic Visual Information Processing	32	2	spring	
		2017JX02	Information Theory and Coding	32	2	fall	
9 Non-required course of the degree 9 Credits		2015LXS05	Interdisciplinary Elective Machine Learning ---------- **or** ---------- Distributed Computing ---------- **or** ---------- Data Management Technology	32	2		RequiredCourse
		2015LXS06	*	16	1		

		Comprehensive Quality			spring	
	2015LXS07	Academic Paper Writing	32	2	spring	
	2015JC26	Computer-Aided Design	32	2	spring	4 4 Credits at least
	2017CZ04	Image Processing and Analysis	32	2	spring	
	2017CZ05	Matlab Matlab Programming	32	2	spring	
	2015JC25	Method of Programming	32	2	fall	
	2017CZ06	IC manufacturing	32	2	spring	
Academic Activities	Seminar and Conferences					Required Course
	Scientific Research					
	Literature Reading and Reviewing					

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2	Computer Software and Theory
3	Computer Application Technologies

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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.

Courses for Master Students of Computer Science and Technology

Categories		Course No	Course Name	Hours	Credits	Term	Note
18 Required course of the degree 18 Credits	General Courses	2015LXS01	* Chinese Language I	32	2	fall	Required Course
		2015LXS02	Chinese Language II	32	2	spring	
		2015LXS03	* Introduction to China	32	2	fall	
	Major BasicCourses	2017JX03	Advanced Computer Programming	32	2	fall	Required Course
		2017JX04	Design and Analysis of Algorithms	32	2	spring	
		2017JX05	Mathematical Logic	32	2	fall	
	Major Courses	2017JX06	Java Java Programming	32	2	fall	6 6 Credits at least
		2017JX07	Distributed Computing	32	2	fall	
		2017JX08	Machine Learning	32	2	fall	
		2017JX09	Software Testing	32	2	spring	
		2017JX10	Network and Information Security	32	2	spring	
		2015JC26	Computer-Aided Design	32	2	spring	
10 Non-required course of the degree course 10 Credits		2015LXS05	* Interdisciplinary Elective	32	2		Required Course
		2015LXS07	Academic Paper Writing	32	2		
		2015JX01	Data Management Technology	32	2	fall	6 6 Credits at least
		2017JX11	Digital Image Processing	32	2	fall	
		2017JX12	Information Retrieval	32	2	fall	
		2017JX13	Artificial Intelligence	32	2	spring	
		2017JX14	Software Reuse	32	2	spring	
		2017JX15	Multimedia Technology	32	2	spring	
		2017JX16	Model Checking	32	2	fall	
Academic Activities		Seminar and Conferences					Required Course
		Scientific Research					
		Literature Reading and Reviewing					

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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 Nat

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.

Courses for Master Students of Hydrology and Water Resources

Categories		No	Course	Hours	Credit	Term	Note
19 Required course of the degree 19 Credits	General Courses	2015LXS01	* Chinese Language	32	2	fall	RequiredCourse
		2015LXS02	Chinese Language	32	2	spring	
		2015LXS03	* Introduction to China	32	2	fall	
	Discipline Basic Courses	2015JC03	Numerical Analysis	48	3	Fall	6 6Credits at least
		2015JC04	Optimization Methods	32	2	Fall	
		2015JC01	Partial Differential Equations	32	2	Spring	
		2015JC02	Applied Mathematics	72	4	Spring	
	Major Courses	2015SW04	Numerical Simulation of Groundwater	18	1	Spring	RequiredCourse
		2015SW05	Environmental Hydraulics	32	2	Spring	
	Major BasicCourses	2015SW06	Modern Hydrological Modeling and Forecasting	32	2	Spring	RequiredCourse
		2015SW07	Water Resources Planning and Management	32	2	Spring	
9 Non-required course of the degree 9 Credits		2015LXS05	A course in other disciplines	32	2		RequiredCourse
		2015LXS06	Comprehensive Quality	18	1		
		2015SW08	Collection of Water Information and Data Processing	32	3	Spring	RequiredCourse
		2015SW09	Mathematic Model of Water Environment	32	2	Spring	
		2015LXS07	The Art of Scientific Presentation and Writing in English	32	2		
Academic Activities		Seminar and Conferences					Required Course
		Scientific Research					
		Literature Reading and Reviewing					

081502

08 0815

1981

1990 1994 2007

“ 211 ”

1 River Management, Aquatic Ecology and Environment

2 Theory and Applications of Engineering Hydraulics

3 Flow, Sediment Transportation and It Application in River Engineering

4 Engineering Seepage and Ground water Environment

5 Computational Hydraulics and Hydro informatics

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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.

Courses for Master Students of Hydraulics and River Dynamics

Categories		No	Course	Hours	Credit	Term	Note
19 Required course of the degree Courses 19 Credits	General Courses	2015LXS01	* Chinese Language	32	2	fall	RequiredCourse
		2015LXS02	Chinese Language	32	2	spring	
		2015LXS03	* Introduction to China	32	2	fall	
	Discipline Basic Courses	2015JC03	Numerical Analysis	48	3	fall	5 5 Credits at least
		2015JC04	Optimization Methods	32	2	fall	
		2015JC01	Partial Differential Equations	32	2	spring	
	Major BasicCoursess	2017SD01	River Mechanics	32	2	spring	RequiredCourse
		2017SD06	Numerical Simulation Methods for Engineering Turbulence	32	2	fall	
		2017SD07	Engineering Hydrodynamics and Applications	32	2	spring	
	Major Courses	2017SD08	Flow and Transport in Porous Media	32	2	spring	RequiredCourse
9 Non-required course of the degree 9 Credits		2015LXS05	* Interdisciplinary Elective	32	2		Required Course
		2015LXS06	* Comprehensive Quality	16	1		
		2015JC26	Computer-Aided Design	32	2	spring	
		2015JC25	Methods of Programming	32	2	fall	
		2015LXS07	The Art of Scientific Presentation and Writing in English	32	2	fall or spring	
Academic Activities		Seminar and Conferences					RequiredCourse
		Scientific Research					
		Literature Reading and Reviewing					

081503

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1952 1981

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2002

973

1. Safety Monitoring Theories,

Methods and Techniques for High Dams and Their Foundations

2. Computation Theories and Experimental Techniques for Dam Designs

3. High Slopes and Underground Engineering

4. Sluices, Ship Locks and Water Transport Structures

5. Materials and Construction for Hydraulic Concrete Structures

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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.

Courses for Master Students of Hydraulics Structure Engineering

Categories		No	Course	Hours	Credit	Term	Note
19 Required course of the degree 19 Credits	General Courses	2015LXS01	* Chinese Language	32	2	fall	RequiredCourse
		2015LXS02	Chinese Language	32	2	spring	
		2015LXS03	Introduction to China	32	2	fall	
	Discipline Basic Courses	2015JC03	Numerical Analysis	48	3	fall	5 5 Credits at least
		2015JC04	Optimization Methods	32	2	fall	
		2015JC01	Partial Differential Equations	32	2	spring	
	Major BasicCourses	2017SD09	Finite Element Method For Hydraulic Structure	64	4	fall	6 6 Credits at least
		2015JC09	Elastic Mechanics	32	2	fall n	
		2015LC05	Plastic Mechanics	32	2	spring	
	Major Courses	2017SD02	Advanced Hydraulic Structure	32	2	spring	2 2 Credits at least
		2017SD10	Dam Safety Monitoring Theory and Its Application	32	2	spring	
		2017SD11	Underground Engineering and Slope Stability	32	2	spring	
		2017SD03	Seepage Analysis and Controlling Engineering	32	2	spring	
		2017SD12	New Construction Technology of Hydraulic Engineering	32	2	fall	
		2017SD05	Earth Rock Earthquake Engineering	32	2	spring	
9 Non-required course of the degree 9 Credits		2015LXS05	* Interdisciplinary Elective	32	2		RequiredCourse
		2015LXS06	* Comprehensive Quality	16	1		
		2015JC25	Methods of Programming	32	2	fall	
		2015JC26	Computer-Aided Design	32	2	spring	
		2015LXS07	The Art of Scientific Presentation and Writing in English	32	2	fall or spring	
Academic Activities		Seminar and Conferences					RequiredCourse
		Scientific Research					
		Literature Reading and Reviewing					

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1 Water Resources & Hydropower System Planning and Engineering Economy

2 Hydraulics of Hydropower Station, Pump Station and Pumped-Storage Power Station

3 Structure of Hydropower Station and Pump Station

4 Hydraulic Transient Control and Simulation of Hydraulic Unit

5 Technique of Pumped-Storage Project and Renewable Energy

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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

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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.

Courses for Master Students of Surveying and Mapping

Categories		No	Course	Hours	Credits	Term	Note
19 Required course of the degree 19 Credits	General Courses	2015LXS01	* Chinese Language I	32	2	fall	RequiredCourse
		2015LXS02	* Chinese Language II	32	2	spring	
		2015LXS03	* Introduction to China	32	2	fall	
	Major BasicCourses	2015JC03	* Numerical Analysis	48	3	fall	RequiredCourse
		2015JC04	* Optimization Methods	32	2	fall	
	Major Courses	2015DX01	Modern Geodesy	32	2	spring	8 8 Credits at least
		2015DX02	Application of Optimal Estimation Theory in Space Geodesy	32	2	spring	
		2017DX04	Global Navigation Satellite System Principle and Application	32	2	fall	
		2015DX03	GIS GIS and Spatial Analysis	32	2	spring	
		2015DX07	Environmental Geodesy	32	2	fall	
		2015DX06	Frontiers of Remote Sensing Science	32	2	spring	
9 Non-required course of the degree 9 Credits		2015LXS05	* Interdisciplinary Elective	32	2		Required Course
		2015LXS06	* Comprehensive Quality	16	1		
		2015DX04	Special Topic on Geodesy and Surveying Engineering	32	2	spring	6 6 Credits at least
		2017DX05	Hyperspectral Remote Sensing	32	2	spring	
		2017DX06	Microwave Remote Sensing	32	2	spring	
		2017DX08	Computer Vision	32	2	spring	
		2017DX09	Satellite Positioning Algorithm and Program Design	32	2	fall	
		2015DX05	Remote Sensing Geo-Analysis	32	2	spring	
		2017DX03	Regional Developing Plan	32	2	fall	
		2017DX01	Advanced Remote Sensing	32	2	spring	
		2017DX02	Digital Elevation Model	32	2	spring	
Academic Activities		* Seminar and Conferences					Required Course
		* Scientific Research					
		* Literature Reading and Reviewing					

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2003 2006 2005

2011

2014

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1. Geological Engineering

2. Grounderwater Science and Engineering

3. Geological Prospecting and Information Technology

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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.

Courses forMasterStudents of Geological Resource and Geological Engineering

Categories		Course No.	Course Name	Hours	Credit	Term	Note
18 Required course of the degree 18Credits	General Courses	2015LXS01	* I Chinese Language I	32	2	fall	Required Course
		2015LXS02	* II Chinese	32	2	spring	
		2015LXS03	* Introduction to China	32	2	fall	
	Major Basic Courses	2015JC03	Numerical Analysis	48	3	fall	Required Course
		2015JC04	Optimization Methods	48	3	fall	
		2015JC01	Partial Differential Equations	32	2	spring	
		2015JC08	Matrix Theory	32	2	fall	
	Major Courses	2015DX12	Engineering Geological Theory and Research Methods on High Rock Slope Engineering	32	2	spring	6 6 Credits at least
		2015DX13	Exploration Geophysics	32	2	spring	
		2015DX14	Environmental Geochemistry	32	2	fall	
		2015DX15	Reinforcement Methods for Geological Body	32	2	spring	
		2015DX16	Contaminant Hydrogeology	32	2	fall	
10 Non-degree courses of the degree courses 10 Credits		2015LXS05	* A course in other discipline	32	2		Required Course
		2015LXS06	* Comprehensive Quality	16	1		
		2015DX17	Numerical Calculation of Hydrogeology	32	2	spring	7 7 Credits at least
		2015DX18	Dynamics of Fluids in Fractured Rocks	32	2	spring	
		2017DX11	Well Design and Application	48	3	fall	
		2015SW02	Higher Groundwater Dynamics	32	2	spring	
		2015TM02	Advanced Computational Mechanics	64	4	spring	
		2015TM06	Foundation Analysis	32	2	spring	
Academic Activities		* Seminar and Conferences					Required Course
		* Scientific Research					
		* Literature Reading and Reviewing					

0823

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2008 2010

1 Transportation planning and management

2 Highway and railway engineering

3 Traffic information engineering and control

4 Vehicle operation engineering

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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.

Courses for Master Students of Transportation Engineering

Categories		Course No	Course Name	Hours	Credits	Term	Note
19 Required course of the degree 19 Credits	General Courses	2015LXS01	* Chinese Language I	32	2	fall	Required Course
		2015LXS02	Chinese Language II	32	2	spring	
		2015LXS03	* Introduction to China	32	2	fall	
	Discipline Basic Courses	2015JC04	Optimization Methods	48	3	spring	
		2015JC03	Numerical Analysis	48	3	fall	
	Major BasicCourses	2017TM01	Traffic Engineering	48	3	spring	Required Course
		2015JC09	Elastic Mechanics	32	2	spring	
	Major Courses	2017TM02	Traffic Control	32	2	spring	2 2 Credits at least
		2017TM03	Traffic planning	32	2	spring	
		2017TM04	Pavement Engineering	32	2	spring	
		2017TM05	Advanced Subgrade Engineering	32	2	spring	
9 Non-required course of the degree 9 Credits		2015LXS05	* Interdisciplinary Elective	32	2	spring	Required Course
		2015LXS06	* Comprehensive Quality	16	1	spring	
		2015LXS07	Academic Paper Writing	32	2	fall/spring	
		2017TM06	Intelligent Transportation System	32	2	spring	4 4 Credits at leas
		2017TM07	Urban Traffic Network Analysis	32	2	spring	
		2017TM08	Road Traffic Safety	32	2	fall	
		2015LC05	Plasticity Mechanics	32	2	spring	
		2017TM09	Advanced Pavement Materials	32	2	spring	
		2015TM06	Foundation Analysis	32	2	spring	
Academic Activities		Seminar and Conferences					Required Course
		Scientific Research					
		Literature Reading and Reviewing					

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1 Irrigation and Drainage Engineering

2 Protection of Agricultural Soil and Water Environment

3 Soil and Water Conservation

4 Bio-environmental engineering

5 Planning and Utilization of Agricultural Soil and Water

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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.

Courses for Master Students of Agricultural Engineering

Categories		No	Course	Hours	Credit	Term	Note
19 Required course of the degree Courses 19 Credits	General Courses	2015LXS01	* Chinese Language	32	2	fall	RequiredCourse
		2015LXS02	Chinese Language	32	2	spring	
		2015LXS03	* Introduction to China	32	2	fall	
	Discipline Basic Courses	2015JC03	Numerical Analysis	48	3	fall	RequiredCourse
		2015JC04	Optimization Methods	32	2	fall	
	Major BasicCourses	2015SD01	System Analysis of Irrigation and Drainage Engineering	32	2	Spring	RequiredCourse
		2015SD04	Agricultural Soil and Water Environment	32	2	Spring	
	Major Courses	2015SD03	Design and Statistics of Experiment	32	2	Spring	4 4 Credits at leas
		2015SD02	Environmental biotechnology	32	2	Spring	
		2015SD05	Theory on Water-Saving Irrigation	32	2	fall	
		2015SD06	Installed Agricultural Engineering	32	2	fall	
9 Non-required course of the degree 9 Credits		2015LXS05	* Interdisciplinary Elective	32	2		RequiredCourse
		2015LXS06	* Comprehensive Quality	16	1		
		2015JC22	Advanced Management	32	2	fall	
		2015JC25	Methods of Programming	32	2	fall	
		2015LXS07	The Art of Scientific Presentation and Writing in English	32	2	fall or spring	
Academic Activities		Seminar and Conferences					RequiredCourse
		Scientific Research					
		Literature Reading and Reviewing					

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1 (Water Resource Protection and Bioremediation)

2 (Environmental Water Conservancy and Ecological Hydraulics)

3 (Environmental System Planning and Complex Assessment)

4 (Water Pollution Control and Water Treatment Engineering)

5 (Solid Waste Disposal and Resourced

Utilization)

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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

055100

Master of Translation and Interpreting

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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.

Courses for Professional Master Students of Translation and Interpreting

Categories		No.	Course	Hours	Credits	Term	Note
20 Required course of the degree 20 Credits	General Courses	2015LXS01	I Chinese Language I	32	2	fall	Required Course
		2015LXS02	II Chinese Language II	32	2	spring	
		2015LXS03	Introduction to China	32	2	fall	
	Discipline BasicCourses	18E0101	The Chinese Language and Culture	48	3	spring	3 3Credits at least
		18E0102	General Introduction to Translation Studies	48	3	fall	
		18E0103	Theory and Practice of Interpretation	48	3	fall	Required Course
		18E0104	Theory and Practice of Written Translation	48	3	fall	
	Major Courses	18E0105	Consecutive Interpretation	48	3	spring	Required for Oral Interpretation
		18E0106	Spontaneous Interpretation	48	3	spring	
		18E0107	Literary Translation	48	3	spring	Required for Written Interpretation
		18E0143 /	Non-Literary Translation	48	3	spring	
		2015LXS06	Comprehensive Quality	16	4		
10 Non-required course of the degree 10 Credits							

	2017SD04	Engineering Hydrodynamics	32	2	Spring	
	2017SD05	Earth Rock Earthquake Engineering	32	2	Spring	
	2015SD09	Hydroelectric Engineering	32	2	Spring	
	2015GH10	Software Application of Estuarine, Coastal Hydrodynamic and Sediment	32	2	Spring	
	2015GH11	Numerical Analysis of Port and Waterway Engineering Structures	32	2	Spring	
	2015LXS07	The Art of Scientific Presentation and Writing in English	32	2	Spring, Fall	

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1 Engineering Project Planning and Management

2 Real Estate Project Development and Management

3 International Engineering Management

4 Logistics and Supply Chain Management

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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.

Courses for Professional Master Students of Project Management

Categories		Course No	Course Name	Hours	Credit	Term	Note
20 Required course of the degree 20 Credits	General Courses	2015LXS01	* Chinese Language I	32	2	fall	Required Course
		2015LXS02	Chinese Language II	32	2	spring	
		2015LXS03	* Introduction to China	32	2	fall	
	Major Basic Courses	2015JC19	Management	32	2	fall	Required Course
		2017SX67	Operations Reasearch	32	2	fall	
		2017SX68	System Engineering	32	2	fall	
	MajorCourses	2015SX07	Project Management	32	2	fall	Required Course
		2017SX52	Project Procurement and Contract Management	32	2	fall	
		2017SX69	Project Planning and Control	32	2	fall	
		2017SX53	Management Information System	32	2	fall	
10 Non-required course of the degree 10 Credits		2015LXS05	* Interdisciplinary Elective	32	2		Required Course
		2015LXS06	* Comprehensive Quality	16	1		
		2017SX70	Information retrieval	16	1	spring	
		2017SX71	Engineering Ethics	32	2	spring	10 10Credits at least
		2015SX05	Strategic Management	32	2	spring	
		2017SX72	Organizational Behavior	32	2	spring	
		2015SX04	Human Resources Management	32	2	spring	
		2017SX73	Engineering Economics	32	2	spring	
		2017SX74	Engineering Construction Regulations	32	2	spring	
		2017SX75	Management Communication	32	2	spring	
		2017SX54	Business Law	32	2	spring	
Academic Activities		Seminar and Conferences					Required Course
		Scientific Research					
		Literature Reading and Reviewing					

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MBA

MBA

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.

Courses for Professional Master Students of Business Administration

Categories		No.	Course	Hours	Credit	Term	Note
28 Required course of the degree 28 credits	General Courses	2015LXS01	I Chinese Language I	32	2	fall	Required Course
		2015LXS02	II Chinese Language II	32	2	spring	
		2015LXS03	China Introduction	32	2	fall	
	Core Course	2017MBA01	Management	48	3	fall	22 22 credits at least
		2017MBA02	Economics	48	3	fall	
		2017MBA03	+ Accounting	48	3	fall	
		2017MBA04	+ Operation Management	48	3	fall	
		2017MBA05	+ Marketing	48	3	fall	
		2017MBA06	+ Human Resource Management	48	3	fall	
		2017MBA07	+ Corporale Finance	48	3	fall	
		2017MBA08	+ Organizational Behavior	48	3	fall	
		2017MBA09	+ Management Communication	48	3	fall	
		2017MBA10	+ Strategic Management	48	3	fall	
		2017MBA11	Data, Modeling & Decision Making	32	2	fall	
		2017MBA12	Management InformationSystem	32	2	fall	
12 Non-required course of the degree 12 credits	Strategy and decision making	2017MBA13	Business Law	32	2	/ fall/spring	12 12 credits at least
		2017MBA14	Competitive Strategy&Competitive Intelligence	32	2	/ fall/spring	
	Innovation and Entrepreneurship	2017MBA15	Venture Management	32	2	/ fall/spring	
		2017MBA16	Technological Innovation & Knowledge Properties	32	2	/ fall/spring	
		2017MBA17	Venture Capital investment	32	2	/ fall/spring	
	Operation and information system	2017MBA18	Electronic Commerce	32	2	/ fall/spring	
		2017MBA19	Service Management	32	2	/ fall/spring	
		2017MBA20	Performance and Salary Management	32	2	/ fall/spring	

	Organization and human resource	2017MBA21	Organization development and innovation	32	2	/ fall/spring	
		2017MBA22	Training and exploiting on human resource	32	2	/ fall/spring	
	Marketing	2017MBA23	Marketing behavior	32	2	/ fall/spring	
		2017MBA24	International Business	32	2	/ fall/spring	
		2017MBA25	Brand Management	32	2	/ fall/spring	
	financial analysis and management	2017MBA26	Internal control and risk management in corporation	32	2	/ fall/spring	
		2017MBA27	Corporation tax revenue management	32	2	/ fall/spring	
		2017MBA28	Corporate Finance Analysis	32	2	/ fall/spring	
	Financial optional courses	2017MBA29	Commercial bank management	32	2	/ fall/spring	
		2017MBA30	Investment Practice	32	2	/ fall/spring	
		2017MBA31	Topics on Finance	32	2	/ fall/spring	
	Engineering field optional courses	2017MBA32	project procurement and contract management	32	2	/ fall/spring	
		2017MBA33	Project Management	32	2	/ fall/spring	
		2017MBA34	Project Planning and Control	32	2	/ fall/spring	
		2017MBA35	Engineering Ethics	32	2	/ fall/spring	
		2017MBA36	Topic on Water Industry	32	2	/ fall/spring	
	Yacht field optional courses	2017MBA37	The yacht club management	32	2	/ fall/spring	
		2017MBA38	The yacht commercial event planning and management	32	2	/ fall/spring	
		2017MBA39	Topics on Yacht Industry	32	2	/ fall/spring	
		Interdisciplinary optional courses Other Optional Courses in Business School		32	2		
10 Practice Activities 10 credits	Comprehensive practice	2017MBA40	Business Simulation	32	2	/ fall/spring	10 10 credits at least
		2017MBA41	Management Lecture	32	2	/ fall/spring	
		2017MBA42	Business Case Analysis	32	2	/ fall/spring	
		2017MBA43	Management Consulting	32	2	/ fall/spring	
		2017MBA44	Training of Innovation and Entrepreneurship	32	2	/ fall/spring	
		2017MBA45	Business Activities	32	2	/ fall/spring	

12 Degree Thesis12 credits	192	12		
62 Total62credits	992	62		

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.

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MPA 37 14 20

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MPA

1. Administration and Public Affairs Management
2. Social Security
3. Resource and Environment Management
4. Resettlement Management

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MPA 3

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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.

Courses for Professional Master Students of Public Administration

Categories		No	Course	Hours	Credit	Term	Note
20 Required course of the degree 20 Credits	General Courses	2015LXS01	Chinese Language	32	2	fall	Required Course
		2015LXS02	Chinese Language	32	2	spring	
		2015LXS03	Introduction to China	32	2	fall	
	Discipline Basic Courses	2015JC12	Public Economics	32	2	fall	8 8 Credits at least
		2015JC13	Public Management	32	2	spring	
		2015JC14	Public Policy Analysis	32	2	spring	
		2015JC15	Methods of Social Research	32	2	fall	
		2015JC16	Nongovernment Organization	32	2	fall	
		2017GG01	Public Organization Theory	32	2	fall	
	Major Courses	2015GG01	Theories and Method of Land Resource Management	32	2	spring	6 6 Credits at least
		2015GG02	Resettlement Politics and Management	32	2	spring	
		2015GG03	Public Human Resource Management	32	2	spring	
		2015GG04	Social Security	32	2	spring	
		2015GG05	E- Public Affairs	32	2	fall	
9 Non-required course of the degree 9 Credits		2015LXS05	* Interdisciplinary Elective	32	2		Required Course
		2015LXS06	* Comprehensive Quality	16	1		
		2015GG07	Evaluation and Management of the Project	32	2	fall	6 6 Credits at least
		2015GG08	Environment and Natural Resource Economics	32	2	spring	
		2015GG09	Social Assessment	32	2	fall	
		2015GG10	Applied Psychology	32	2	spring	
		2015GG11	Development Study	32	2	fall	
		2015GG12	Social Welfare and Social Relief	32	2	fall	
Academic Activities		Seminar and Conferences					Required Course
		Scientific Research					
		Literature Reading and Reviewing					