地质资源与地质工程(0818)

学科门类：工学(08)一级学科：地质资源与地质工程(0818)

一、专业描述

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

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

二、培养目标

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

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

三、研究方向

1. 地质工程（Geological Engineering）

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

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

四、申请条件

1. 已在我国认可的海内外高校或学术机构获得硕士学位者。

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

五、培养年限

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

六、学分要求和课程设置

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

Geological Resource and Geological Engineering (0818)

Discipline: Engineering (08)

First- Class Discipline: Geological Resource and Geological Engineering

1. Discipline Description

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

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

2. Program Description

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

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

3. Research Directions

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

4. Application Requirements

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

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

5. Educational System and Duration

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

6. Credits and Courses

A 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.

地质资源与地质工程全英文留学博士研究生课程设置

Courses for Doctoral Students of Geological Resource and Geological Engineering

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