

**中国石油大学（华东）来华留学硕士研究生**  
**石油与天然气工程（全英文）培养方案**  
**Master Program for International Students**  
**Oil and Gas Engineering (English-Taught)**

一级学科代码 First-level Discipline Code:	0820	一级学科名称 First-level Discipline:	石油与天然气工程 Oil and Gas Engineering
二级学科代码 Second-level Discipline Code	082000	二级学科名称 Second-level Discipline:	石油与天然气工程 Oil and Gas Engineering
校内专业代码 Program Code:	082000	校内专业名称 Program Name:	石油与天然气工程 Oil and Gas Engineering
学制、学习年限 Duration、Maximum Study Period::	学制3年；Duration: 3 Years 学习年限3-5年； Maximum Study Period: 3 - 5 Years	所属院系 School:	石油工程学院 School of Petroleum Engineering

**培养目标 Program Objectives:**

1) 具备批判性思维和创新性思维，系统掌握学科基础理论和专业知识，具备较强创新意识和创新能力，能够独立从事科学研究或专业技术工作的能力。具有解决实际问题或担任专门技术工作的能力，具有较强的工程规划、工程设计与运行、工程分析与集成、工程研究与开发、管理与决策等能力。

Possess critical and innovative thinking skills; have a systematic grasp of the fundamental theories and specialized knowledge of the discipline; demonstrate a strong sense of innovation and innovative capabilities; and be capable of independently engaging in scientific research or specialized technical work. possess the ability to solve practical problems or undertake specialized technical work; and demonstrate strong capabilities in engineering planning, design and operation, analysis and integration, research and development, as well as management and decision-making.

2) 熟悉中国历史、地理、社会、经济等基本国情，了解中国政治制度和外交政策，理解中国社会主流价值观和公共道德观念，形成良好的法治意识。

Be familiar with China's history, geography, society, economy, and other aspects of its national conditions; understand China's political system and foreign policies; grasp the mainstream social values and public moral standards of Chinese society; and develop a sound awareness of the rule of law.

3) 初步掌握中文，达到《汉语水平考试》三级水平。具备文化多样性的认知、适应和沟通技能，能够在跨文化环境中发挥积极作用，成为促进中外交流的友好使者。Acquire a basic command of the Chinese language and achieve at least Level 3 of the Chinese Proficiency Test (HSK). Possess the cognitive, adaptive, and communication skills necessary to navigate cultural diversity, and be able to play an active role in cross-cultural settings as a friendly ambassador promoting exchanges between China and other countries.

4) 在本学科领域中具有较好的国际视野，能够在多个国家的实际环境中运用和发展本学科的知识、技能和方法，并具备参与国际事务和国际竞争的能力。

Possess a strong international perspective within this discipline field, be able to apply and develop the knowledge, skills, and methods of this discipline in real-world settings across multiple countries, and possess the ability to engage in international

affairs and compete on the global stage.

**课程设置 Curriculum Structure:**

类别 Course Category	课程编号 Course Code	课程名称 Course Title	学时 Course Title	学分 Credit	开课学期 Semester Offered	备注 Remarks
公共必修课 Public Compulsory Courses	L7000001	中国概况 Survey of China	32	2	1	
	L7000011	汉语言基础（全英 语授） Fundamental Chinese Language	48	3	1	
基础理论课 Fundamental Theory Courses	L6000025	数值分析 Numerical Analysis	48	3	1	
专业必修课 Specialized Compulsory Courses	LZB02802M	胶体与界面化学 Colloid and Interface Chemistry	32	2	1	
	LZB02803M	渗流物理 Physics of Fluid Flow in Porous Media	32	2	1	
	LZB02801M	高等岩石力学 Advanced Rock Mechanics	32	2	2	
专业选修课 Specialized Elective Courses	LZX02801M	现代钻完井工程 Modern Drilling and Completion Engineering	32	2	2	
	LZX02802M	高等油气藏工程 Advanced Oil and Gas Reservoir Engineering	32	2	2	
	LZX02803M	油气生产系统优化 理论与技术 Theory and Technology of Optimization for Petroleum Production Systems	32	2	2	

	LZX02805M	提高采收率原理与方法 Principles and Methods of Enhanced Oil Recovery	32	2	2	
	LZX02806M	油藏数值模拟 Numerical Reservoir Simulation	32	2	1	
	LZX02808M	油气储层改造技术 Reservoir Stimulation Technology	32	2	2	
	LZX02807M	智能油气工程 Intelligent Oil and Gas Engineering	32	2	1	
	LZX02804M	深水钻采工程 Deepwater Drilling and Production Engineering	32	2	1	
补修课程 Make-up Courses	BX02101T	钻井工程 Drilling Engineering	56	0	2	Student with a bachelor degree in other majors (i.e. non-petroleum engineering) must take at least 2 make-up courses.
	BX02102T	油藏工程 Reservoir Engineering	56	0	2	
	BX02103T	采油工程 Production Engineering	56	0	2	
	BX02104T	油田化学 Oilfield Chemistry	32	0	1	
	BX02105T	流体力学 Fluid Mechanics	48	0	2	
	BX02106T	渗流力学 Fluid Flow in Porous Media	48	0	1	
	BX02107T	油层物理 Petrophysics	40	0	1	
	BX02108T	岩石力学 Rock Mechanics	32	0	1	

必修环节 Compulsory Academic Requirements	LBH00001M	参加 10 次以上学术 报告, 作 1 次公开 学术报告 Attend at least 10 academic seminars and make one academic presentation	0	1	3	
	LBH00002M	文献阅读与开题报 告 (硕士) Literature Review and Research Proposal	0	1	3	

**备注 Notes:**

最低学分要求 22 分 **Minimum required credits: 22 credits.**