资源勘查工程专业（英文授课）留学生本科培养方案-(秋季入学)

（专业代码：081403）

一、培养目标

1. 本专业培养适应现代油气地质与勘探工程发展需要，德智体全面发展，获得石油地质工程师基本训练，毕业后能从事油气成藏、综合勘探与开发地质及相关领域的科学研究、工程设计、科技开发和管理等方面工作的高素质专门技术人才。

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

3. 毕业时中文能力应当达到《国际汉语能力标准》四级水平。

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

二、业务要求

毕业生应获得以下几方面的知识和能力：

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

2．掌握本专业所必需的地质基础理论和石油天然气地质的基本理论，具有应用基础理论和基础知识进行油气地质研究及综合勘探、油藏开发地质工程设计的基本技能；掌握地球物理勘探的基本知识、具有地震及测井资料解释和综合应用的能力；

3．具有较强的专业实践能力、能够综合运用所学知识解决油气地质研究及综合勘探、油藏开发地质工程设计方面的实际问题；

4．掌握油气地质等专业文献检索和其它获取科技信息的方法；

5．具有较强的自学能力、油气地质研究与勘探设计方面的工作能力、较熟练的计算机操作应用能力和创新意识。

三、毕业要求及学时、学分分配

分类		学分	学时	备注
必修	理论	113.5	1920	含实验学时 174，上机学时 56
	实验	3.0	72	
	实践	30	30 周	
毕业要求	1、本专业学生需修满教学计划要求的 146.5 学分，且通过 HSK4 级，方可毕业。 2、符合条件，授予工学学士学位。			

	3、本专业学生**可以**使用英语撰写毕业论文，但**须**有汉语论文摘要。

四、课程设置、教学环节及进程

第一学年

第 1 学期

课程编码	课程名称	学分	学时	讲授学时	实验	上机
20901	初级汉语口语（2-1）	4.0	64	64		
20902	初级汉语精读（2-1）	4.0	64	64		
09101	高等数学(2-1)	6.0	90	90		
09601	大学化学	2.5	40	32	8	
01101	地球科学概论	3.0	48	38	10	
07113	计算机应用计算实验	1.0	24			24
209020	道德与法律	1.0	16	16		
合计		21.5	346	304	18	24

第 2 学期

课程编码	课程名称	学分	学时	讲授学时	实验	上机
20901	初级汉语口语（2-2）	4.0	64	64		
20902	初级汉语精读（2-2）	4.0	64	64		
09101	高等数学(2-2)	5.0	86	86		
07104	程序设计语言 C	3.0	80	48		32
01102	矿物岩石学(含晶体光学)	5.0	80	56	24	
09103	线性代数	2.0	32	32		
合计		23.0	406	350	24	32

夏季学期

课程编码	课程名称	学分	学时	实验	上机
01911	地质认识实习	3.0	3.0 周		
合计		3.0			

第二学年

第 3 学期

课程编码	课程名称	学分	学时	讲授学时	实验	上机
20906	中国概况（2-1）	3.0	48	48		
20903	中级汉语（2-1）	4.0	64	64		
09301	大学物理(2-1)	4.0	64	64		
09401	大学物理实验(2-1)	1.0	24		24	
01133	古生物学	2.0	32	22	10	
09612	有机化学	2.5	40	40		
合计		16.5	272	238	34	

第 4 学期

课程编码	课程名称	学分	学时	讲授学时	实验	上机
20904	中国概况（2-2）	3.0	48	48		
20903	中级汉语（2-2）	4.0	64	64		
09301	大学物理(2-2)	3.5	56	56		

09401	大学物理实验(2-2)	1.0	24		24	
01134	沉积学	4.0	64	48	16	
01103	构造地质学	4.0	72	48	24	
01950	沉积学课程设计	1.0	1.0 周			
合计		20.5	328+1 周	264	64	

夏季学期

课程编码	课程名称	学分	学时	实验	上机
01951	综合地质实习	3.0	3.0 周		
合计		**3.0**			

第三学年

第 5 学期

课程编码	课程名称	学分	学时	讲授学时	实验	上机
20905	高级汉语（2-1）	4.0	64	64		
01241	测井方法及综合解释	3.0	48	48		
01136	地史学	2.0	32	28	4	
01135	大地构造	2.0	32	32		
01145	油气地球化学	2.0	32	32		
合计		13	208	204	4	

第 6 学期

课程编码	课程名称	学分	学时	讲授学时	实验	上机
20905	高级汉语（2-2）	4.0	64	64		
01214	地震勘探原理与解释	4.0	64	64		
01904	地震勘探原理与解释课程设计	1.0	1 周			
01154	油气地质与勘探	4.5	64	56	8	
01905	油气地质与勘探综合研究	1.0	1 周			
合计		14.5	192+2 周	184	8	

夏季学期

课程编码	课程名称	学分	学时	实验	上机
01901	油田地质实习	2.0	2.0 周		
合计		**2.0**			

第四学年

第 7 学期

课程编码	课程名称	学分	学时	讲授学时	实验	上机
02114	油气田开发工程	3.0	48	42	6	
01221	地震资料综合解释	2.0	32	32		
01113	油气田地下地质学	3.5	56	40	16	
01917	油气田地下地质学课程设计	1.0	1 周			

01118	层序地层学	2.0	32	32		
合计		**11.5**	**168+1 周**	**146**	**22**	

第 8 学期

课程编码	课程名称	学分	学时	实验	上机
01999	毕业设计	18.0	18.0 周		
合计		**18.0**			

Undergraduate Program of Petroleum Geology (in English)

(Enrolled in Fall semester)

(Specialty Code: 081403)

I. Educational Objectives

1. The educational aim of Petroleum geology specialty is to cultivate qualified talents with advanced oil & gas geology and exploration engineering knowledge. To develop all-round morality, intellectuality and physical fitness, students can adapt to the needs of modern oil & gas geology and exploration. Not only the students should master the basic training on petroleum geology, but also can be engaged in petroleum exploration design, operation and construction, production and management, scientific development and applied research etc. after the graduation from the university.

2.To be familiar with basic knowledge of Chinese national situation and culture,such as Chinese history, geography, society and economy, etc.. To understand the mainstream values and public morality of Chinese society.

3.Be able to use Chinese language to complete the course study and research tasks smoothly, and have the ability to use Chinese language to engage in work related to the major; Upon graduation, Chinese proficiency should reach HSK level 4.

4.To possess a certain international perspective in the field of this discipline, and be able to apply and develop the knowledge, skills and methods of this discipline in the actual environment of multiple countries, and have the initial ability to participate in international exchanges and cooperation.

II. Requirements

Graduates should acquire the following knowledge and capabilities.

1. Graduates will have solid foundation on math, physics, chemistry, mechanics and geology etc. They are able to use the basic Chinese to read Chinese books and professional magazines of their own specialty and have some skills such as listening, speaking, reading, writing and translation etc.

2. Graduates will grasp the basic theory and professional knowledge of physical geology theories, oil & gas geology theories in their own specialty. They will possess preliminary capability to use basic applied theory and knowledge to proceed oil & gas exploration,

engineering design of reservoir geology, to understand basic knowledge of geophysics, to gain the ability to interpret the data.

3. Graduates will have fairly strong experiment test, calculation and expression abilities and master document retrieval and other method to acquire scientific and technological information in petroleum geology field.

4. Graduates will have a better self-study and work adaptation capability, computer operation and application ability and innovative consciousness in petroleum geology field.

5. Graduates will have insight and ability to use systematic engineering ideas and modern operational knowledge to go on production and organizational management.

III . Graduate Requirements and Distribution of Course Credits and Credit Hours

Category		Course Credits	Credit Hours	Remarks
Required modules	Theory studies	113.5	1920	Including 174 hours of experiment and 56 hours of Computer lab
	Laboratory	3.0	72	
	Practice	30	30weeks	
Graduation requirements	1. Students shall obtain the above required 146.5 credits, and pass HSK-4 in order to graduate. 2. Those who meet the graduation requirements will be awarded a Bachelor of Engineering. 3. Thesis could be written in English while an abstract in Chinese is required.			

IV. Curriculum

The First Academic Year

1. Semester

Code	Courses	Credits	Total Hours	Teaching Hours	Experiment Hours	Computer Hours
20901	Primary Oral Chinese (2-1)	4.0	64	64		
20902	Primary Chinese reading (2-1)	4.0	64	64		
09101	Advanced Math （2-1）	6.0	90	90		
09601	College Chemistry	2.5	40	32	8	
01101	Introduction to Earth Sciences	3.0	48	38	10	
07113	Lab of Computer Application Technology	1.0	24			24
209020	Moral Education and University Regulations	1.0	16	16		
Total		**21.5**	**346**	**304**	**18**	**24**

2. Semester

Code	Courses	Credits	Total Hours	Teaching Hours	Experiment Hours	Computer Hours
20901	Primary Oral Chinese（2-2）	4.0	64	64		
20902	Primary Chinese reading (2-2）	4.0	64	64		
09101	Advanced Math (2-2)	5.0	86	86		
07104	Programming Language C	3.0	80	48		32
01102	Mineral Lithology (including crystallography)	5.0	80	56	24	
09103	Linear Algebra	2.0	32	32		
Total		**23.0**	**406**	**350**	**24**	**32**

Summer Semester

Code	Courses	Credits	Total Hours	Teaching Hours	Experiment Hours	Computer Hours
01911	Geological Cognition Practice	3.0	3weeks			
Total		**3.0**				

The Second Academic Year

3. Semester

Code	Courses	Credits	Total Hours	Teaching Hours	Experiment Hours	Computer Hours
20906	Survey of China (2-1)	3.0	48	48		
20903	Intermediate Chinese（2-1）	4.0	64	64		
09301	College Physics (2-1)	4.0	64	64		
09401	Physics Experiments (2-1)	1.0	24		24	
01133	Palaeontology	2.0	32	22	10	
09612	Organic Chemistry	2.5	40	40		
Total		**16.5**	**272**	**238**	**34**	

4. Semester

Code	Courses	Credits	Total Hours	Teaching Hours	Experiment Hours	Computer Hours
20904	Survey of China (2-2)	3.0	48	48		
20903	Intermediate Chinese（2-2）	4.0	64	64		
09301	College Physics	3.5	56	56		
09401	Physics Experiments (2-2)	1.0	24		24	
01134	Sedimentology	4.0	64	48	16	
01103	Structure geology	4.0	72	48	24	
10950	Sedimentology Processing	1.0	1.0week			
Total		**20.5**	**328+1week**	**264**	**64**	

Summer Semester

Code	Courses	Credits	Total Hours	Teaching Hours	Experiment Hours	Computer Hours
01951	Subjective field practice	3.0	3weeks			
Total		**3.0**				

The Third Academic Year

5. Semester

Code	Courses	Credits	Total Hours	Teaching Hours	Experiment Hours	Computer Hours
20905	Advanced Chinese（2-1）	4.0	64	64		
01241	Logging Method and Integrated Interpretation of Well-Logging Data	3.0	48	48		
01136	Historical Geology	2.0	32	28	4	
01135	Tectonics	2.0	32	32		
01145	Petroleum Geochemistry	2.0	32	32		
Total		**13.0**	**208**	**204**	**4**	

6. Semester

Code	Courses	Credits	Total Hours	Teaching Hours	Experiment Hours	Computer Hours
20906	Advanced Chinese（2-2）	4.0	64	64		
01214	Seismic Exploration Principle and Interpretation	4.0	64	64		
01904	Course Design of Seismic Exploration Principle and Interpretation	1	1 week			
01154	Oil and Gas Geology and Exploration	4.5	64	56	8	
01905	Synthetic study of Oil and Gas Geology and Exploration	1	1week			
Total		**14.5**	**192+2weeks**	**184**	**8**	

Summer Semester

Code	Courses	Credits	Total Hours	Teaching Hours	Experiment Hours	Computer Hours
01918	Integrated Geology Practice	2.0	2weeks			
Total		**2.0**	**2weeks**			

The Fourth Academic Year

7. Semester

Code	Courses	Credits	Total Hours	Teaching Hours	Experiment Hours	Computer Hours
02114	Oil & Gas Field Development Engineering	3.0	48	42	6	
01221	Integrated Interpretation of Seismic Data	2.0	32	32		
01113	Subsurface Geology of Oil & Gas Fields	4.5	56	40	16	
01917	Project on Subsurface Geology of Oil & Gas Fields	1	1 week			
01118	Sequence Stratigraphy	2.0	32	32		
Total		**11.5**	**168+1week**	**168**	**22**	

8. Semester

Code	Courses	Credits	Total Hours	Teaching Hours	Experiment Hours	Computer Hours
01999	Graduation Project	18.0	18weeks			
Total		**18.0**	**18weeks**			