

Education Plan for Academic Graduate in Mining Engineering

(Discipline Code:0819,Award Master Degree of Engineering)

I Objectives

1. Abide the law, good conduct; honest and trustworthy, rigorous style of study, unity, with good research ethics and professionalism.

2. Master a profession (or occupation) in the field of solid theoretical foundation and extensive expertise, have a strong ability to solve practical problems, have the ability to take professional or managerial jobs, to be a good high level of professionalism applied talents.

3. Master a foreign language, can skillfully professional reading and writing.

4. Having physical health and good mental qualities.

II Disciplinary Research Areas

Mining Engineering:

1. Mining theory and technology

2. Rock & soil mechanics and engineering

3. Mine security technologies and blasting engineering

4. Mining information technology and economic management

Mineral Processing Engineering:

1. Mineral separation theory and technology

2. Mineral functional materials

3. Mineral resources circulating utilization and environmental protection

4. New technology of mineral processing

III Educational System and Years of Study

Master degree is 3 years durable and the study period is generally three years, a maximum of five years.

IV Curriculum System and Credit Requirements

Course Description contains Degree courses and Non-degree courses. Degree course contains Public degree courses and Professional degree courses. Non-degree course contains Optional courses and Compulsory Courses. For the needs of the scientific research and paper work, graduate students can take optional courses according to the research direction and the module or take interdisciplinary courses with the guidance of the mentor.

The total credits should not less than 27, including courses at least 22 credits, degree courses not less than 17 credits, compulsory courses not less than 5 credits, optional courses not less than 5 credits.

Table 1 The required Course credits

Subject	All credits	Degree courses credits 12				optional courses credits	Compulsory Courses credits
		Public degree courses			Professional degree courses		
		Ideological politics course	Foreign language	Math			
science and engineering college	27	3	4	4	6	5	5

Table 2 The Curriculum Endorsed

Course Category	Course No.	Course Name	Hour	Credit	Semester	School	Remark
Public Degree Courses	003281001	First Foreign Language(Chinese)	108	6	1、 2	School of Internation Education	Compulsory
	003281002	Introduction to China	54	3	1	School of Internation Education	Compulsory
	01421065	Numerical Computation	36	2	2	Sch. of Science	Compulsory
	01421061	Methods of Mathematical Physics	36	2	1	Sch. of Science	Mining Engineering compulsory
	01421063	Applied Mathematical Statistics	36	2	1	Sch. of Science	Mineral Processing Engineering compulsory
Special Degree Courses	00861101	Modern Mining Engineering	36	2	1	Sch. of Res.andEnv. Eng.	Mining Engineering
	00861103	Advanced Rock Mechanics	36	2	1	Sch. of Res.andEnv. Eng.	

Course Category	Course No.	Course Name	Hour	Credit	Semester	School	Remark
	00861104	Blasting Dynamics	36	2	1	Sch. of Res.andEnv. Eng.	Mineral Processing Engineering
	00861002	Solution Chemistry	36	2	2	Sch. of Res.andEnv. Eng.	
	00861003	Modern Analysis Techniques on Mineral Processing	36	2	2	Sch. of Res.andEnv. Eng.	
	00861004	Advanced Mineral Processing Technology	36	2	1	Sch. of Res.andEnv. Eng.	
Optional Courses	00862111	Special English	18	1	1	Sch. of Res.andEnv. Eng.	Compulsory
	00861105	Mining Engineering Testing Techniques& Experiments	36	2	1	Sch. of Res.andEnv. Eng.	Compulsory
	00862103	Mine Safety Technology	36	2	2	Sch. of Res.andEnv. Eng.	Mining Engineering
	00862104	New Blasting Technology	36	2	2	Sch. of Res.andEnv. Eng.	
	00862105	Rock and Soil Engineering	36	2	1	Sch. of Res.andEnv. Eng.	
	00862106	Mine Pressure and control	36	2	2	Sch. of Res.andEnv. Eng.	
	00862107	Prevention and Cure of Mine Disasters	36	2	2	Sch. of Res.andEnv. Eng.	
	00862108	Mine Digital Techniques	36	2	2	Sch. of Res.andEnv. Eng.	

Course Category	Course No.	Course Name	Hour	Credit	Semester	School	Remark
	00862003	Mining Economics	36	2	1	Sch. of Res.andEnv. Eng.	
Optional Courses	00862012	Mineral Engineering English	18	1	1	Sch. of Res.andEnv. Eng.	Compulsory
	00861007	Preparation Technology of Mineral Functional Materials	36	2	1	Sch.of Res.andEnv. Eng.	Compulsory
	00862101	Mining Economics	36	2	1	Sch. of Res.andEnv. Eng.	Mineral Processing Engineering
	00862005	Solid Waste Treatment Techniques	36	2	2	Sch.of Res.andEnv. Eng.	
	00862011	Chemical Separation Technology OF Mineral	36	2	2	Sch.of Res.andEnv. Eng.	
	00862007	Mineral and PolymerMaterial & Compositing Technology	36	2	2	Sch.of Res.andEnv. Eng.	
	00862008	Biotechnology in Resources and Environment	36	2	2	Sch. of Res.andEnv. Eng.	
	00862010	Nanometer material and nanometer structure	36	2	1	Sch. of Res.andEnv. Eng.	
	00862001	Advances in the Mineral Processing Technology	36	2	2	Sch. of Res.andEnv. Eng.	
	00861001	Flotation Electro-chemistry	36	2	2	Sch. of Res.andEnv. Eng.	

Course Category	Course No.	Course Name	Hour	Credit	Semester	School	Remark
Interdisciplinary elective course	02223001	Taijiquan and its	18	1	1	Department of Physical Education	
Compulsory Activities	00824004	Field Practice	54	3	4	Sch. of Res.andEnv. Eng.	
	00824003	Academic Activities	18	1	3	Sch. of Res.andEnv. Eng.	
	00824002	Topic Report	18	1	3	Sch. of Res.andEnv. Eng.	5