

# Geological Resource and Geological Engineering

**Discipline Code: 085217**

## 1. Program object

After the training, the students should be able to: 1) have foundation knowledge and systematic professional knowledge in Geological Engineering; 2) develop scientific research capabilities or the technical expertise in practical work; 3) have an international perspective and potentials of collaboration and innovativeness; 4) become high-level talents of professional technologies and technical and managerial skills in the petroleum industry worldwide.

## 2. Program Orientations

- 1) Petroleum geology and exploration
- 2) Geophysical exploration

## 3. Program Duration

3-5 years

## 4. Credit requirement

Minimum 28 credits in total.

## 5. Courses Schedule

Course Type	Course Code	Course Title	Hours	Credits	Semester	Note
Compulsory Courses	L6000002	Survey of China	36	2	1	
	L6000012	Fundamental Chinese Language	48	3	1	
	L6000025	Numerical Analysis	48	3	1	
	L6011051	Advanced petroleum geology	48	3	1	
	L6011052	Reservoir Geology and Description	48	3	1	
	L6013051	Geophysical exploration method	32	2	1-2	
	L6014051	Geophysical well logging method	32	2	1-2	
Selective Courses	L6011003	Oilfield Lithofacies Paleogeography	32	2	1	≥9 credits

	L6011008	Oil Region Structure Analyzing	32	2	1	
	L6011028	Comprehensive training of Petroleum exploration Technology	32	2	2	
	L6011053	Sequence Stratigraphy	32	2	2	
	L6011054	Digeneis and Reservoir evaluation	32	2	1	
	L6011055	Advanced Structural Geology	16	1	2	
	L6011057	Applied Geochemistry	32	2	2	
	L6012007	Reservoir Geological Basic Skills Training	32	2	2	
	L5013032	Seismic Data Processing	32	2	2	
	L6013007	Fundamentals of geophysical inversion	32	2	1	
	L7013051	Applied geophysics new technologies	16	1	1-2	
	L7014051	Frontiers of Method and Technology of Well-Logging	16	1	1-2	
UPCIC	L6000069	UPC Intensive Curricula	-	≤3	1-4	
Supplementary Courses	L5012001	Petroleum Geology	32	2	1	Choose 2 courses
	L5011005	Introduction of Earth Sciences	32	2	1	
	L5013002	Seismic Exploration Principles	32	2	1	
	L5014015	Method and Principles of Well-Logging	32	2	1	
Compulsory Sections	L7010101	Attend minimum 10 academic seminars, deliver 1 academic presentation		1	3	2 credits
	L7010103	Literature Review and Research Proposal		1	3	

Notes: 1) The students must pass HSK level 3.

2) The trans-disciplinary students choose 2 supplementary courses under the advice of the supervisor. The supplementary courses are compulsory, but will not be counted in the total required credits.