

# Exploration and Practice of the Training Modes of Internationalized School Running of Petroleum Industry

## -- A Case Study of the Petroleum Engineering International Class of Southwest Petroleum University

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### Abstract

In allusion to the gap phenomenon of internationalized talent in China's petroleum industry development, this paper combines the teaching and management practice of the international class of petroleum engineering major in Southwest Petroleum University, aims to establish a high-level and internationalized teachers, carry out bilingual teaching, pay attention to teaching contents, explores the development direction of international talent training and methods and measures to improve teaching in petroleum universities in order to provide some reasonable views and opinions on the training modes of international class in petroleum universities.

### Keywords

Petroleum engineering; international class; training mode; innovation.

## 1. Introduction

With the continuous acceleration of global integration process, the demand for energy around the world continues to grow, petroleum is called the blood of industry and an irreplaceable and important strategic resource, which plays an increasingly important role in the international stage [1]. China's petroleum industry started late and has a certain gap with the world's big petroleum companies in scale, channels, markets, experience, internationalized talents, and enterprise international competitiveness. In order to alleviate the tightness of petroleum supply and demand, ensure national energy security, realize the diversification of petroleum supply in our country, China's petroleum industry must have an international talent team with high quality, high skill and strong style, form talent advantages, technical advantages and brand advantages as soon as possible and enhance their core competitiveness [2].

Southwest Petroleum University established an international class of petroleum engineering major in 2011, introduced advanced foreign educational ideas, established high-level, internationalized teachers, built internationalized teaching system, created international atmosphere within the school, enhanced students' international vision and international competition, through the radiation of the international atmosphere, infiltrated the international training modes into the talent training in other majors.

## 2. Implementation Measures of International Class Teaching and Management

First, encourage and support participation in international academic exchange activities

Multi-form and multi-channel international exchanges are important links of international student training, the college has invited famous experts and scholars at home and abroad to carry out academic exchange activities many times and teach the most cutting-edge knowledge

in the field of petroleum technology. Moreover, the college also invites some experts to teach courses for international class students face-to-face, such as famous professors from research institutes and universities such as Total in France, Clausthal University in Germany, and University of Regina in Canada, etc., provides international class students a platform to better touch international academics.

Second, the construction of international teachers

Diversified bilingual teacher training modes effectively solve the problem of insufficient bilingual teaching teachers in colleges and universities. The solution to the problem of bilingual teachers fundamentally promotes the development of international class teaching and better demonstrates the school running characteristics and advantages of international classes. Furthermore, conversely, the bilingual teaching results promote the training of teachers, the two promote and complement each other, and they are indivisible whole. Therefore, when carrying out internationalized teaching work, colleges and universities must "grasp with both hands", grasp bilingual teacher training with one hand, grasp the bilingual teaching methods and bilingual course setting with another hand, in the end, the ambitious goal of training internationalized talents can be realized.

Third, the petroleum spirit is integrated into the construction of international class teaching and management

The humanities, ideological and political education are valued, and the petroleum spirit is integrated into the daily teaching and management of international classes. While imparting scientific knowledge, the university pays attention to spiritual and cultural edification, strengthens humanistic care, and improves cultural quality education and perfect personality education of international students. The petroleum spirit education is strengthened in the freshman enrollment education, add the humanities and social science courses such as petroleum enterprise culture, petroleum industry development history, introduction to famous petroleum companies, etc., the petroleum spirit is infiltrated in the teaching of ideological and political theory courses, and guide students to establish trend awareness from many angles.

### **3. Exploration of International Class Teaching and Management Modes**

First, establish the "main and supplementary" practice teaching training mode

In order to strengthen the experimental teaching, the college follows the training law of innovative talents, starts from knowledge structure, practice ability, and innovative education, etc., breaks through the traditional idea when experimental teaching is dependent on theoretical teaching, and comprehensively integrates and reconstructs experimental courses, create a new biological experiment teaching model that combines basic experimental skills training with scientific research ability training, basic experiment—comprehensive experiment—research and exploratory experiment, three levels, multiple modules, and mutual connection, use open teaching ideas guide the whole process of experimental teaching, stimulates the enthusiasm and innovation of students' independent learning to a large extent. The establishment of practice teaching mode and the construction of practice teaching conditions meet the teaching needs of students' practice courses, and create good conditions for training students' engineering practice ability and promote students' overall quality.

Second, give full play to the advantages of subject scientific research and use extracurricular scientific and technological activities promote the training of compound innovative talent

Under the situation of increasingly close international exchange and cooperation, the industry should go abroad and actively explore the international market; this is an inevitable trend of economic globalization. Therefore, China must have international talents who can go abroad and open the international market door. The first petroleum engineering international class of Southwest Petroleum University sent 3 students to Clausthal University in Germany for one-

month visit and exchange, aimed to train their international vision and the ability of international exchange and cooperation.

#### **4. Conclusions and Suggestions on the Training Modes of Petroleum Engineering International Class**

First, conduct research on the social needs of industry professionals; understand the two-way needs of the market and talents

The extensive social survey is conducted to understand the actual needs of the society for undergraduate internationalized talents in the petroleum industry. Combining with the particularity of the petroleum industry, investigate the actual work contents of graduates, focus on the basic requirements and work ability needs of petroleum enterprises for undergraduate graduates.

Second, pay close attention to the construction and optimization of teaching resources

Select foreign original textbooks, combine the advantages of the school's scientific research, adapt and integrate the original textbooks and auxiliary materials, moreover, use online education resources (such as MIT open courses, TED open courses, etc.) share foreign high-quality curriculum resources, create an internationalized atmosphere for students in campus, train students' internationalized vision and international understanding. Adhere to multi-angle and multi-disciplinary development, give full play to the characteristics and advantages of our school, and actively organize students to participate in high-standard international exchange activities and multinational oil company internships, so that students can continuously temper their will in practice, increase their talents, and train broad international knowledge and excellent communication ability.

Third, the change of independent learning methods and attitudes of international class students Internationalized talents are talents who integrate the essence of Chinese and Western cultures; they should have correct world outlook and values when dealing with things, they must have the courage to change things that can be changed, and they must also have the heart to accept things that cannot be changed. Study hard, effective implementation, cooperation and communication, interpersonal communication is the behavioral norms of international talents. Numerous definitions and concepts are one of the distinguishing characteristics of petroleum engineering major, in this regard; international class students can use independent learning methods such as infiltration for teaching. This combined explanation is conducive to deepen students' understanding of concepts.

#### **References**

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