

Innovation of Course System for Metallurgical Technology Specialty Combining Engineering With Study

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Abstract: *With the continuous development of social economy and science and technology, my country's education has also undergone various changes. In order to meet the requirements of the current society, metallurgical technology education in higher vocational colleges must improve the teaching quality from the innovative curriculum system. Vocational colleges themselves are places for cultivating talents for social enterprises, so only by perfecting the curriculum system can the comprehensive ability of students be improved from diversified education. the effective innovation of the curriculum system requires the construction of the higher vocational curriculum system in the mode of combination of work and study. This article mainly focuses on the analysis and research on the innovation of the combined engineering and course system for metallurgical technology majors.*

Keywords: Metallurgical technology, combination of engineering and learning, curriculum system, analysis and research.

1. THE PRINCIPLES THAT SHOULD BE FOLLOWED IN THE CONSTRUCTION OF HIGHER VOCATIONAL CURRICULUM SYSTEM IN THE MODE OF COMBINING WORK AND LEARNING

The combination of engineering and learning in metallurgical technology majors is a teaching system that integrates theory and practice oriented by the work process. This system can effectively cultivate compound talents. In the formulation of this system, in order to ensure the rationality of the system, the following principles need to be followed:

1.1 Complete vocational skills training as the goal

There are certain differences between the goals of higher vocational education and higher education. the education of higher vocational colleges pays more attention to improving the professional skills of students. In the school's education, when highlighting the cultivation of students' ability, it is necessary to improve the students' subject knowledge system. Only with application as the purpose of higher vocational metallurgical technology education and ability training as the core of education can the talents needed by the society be cultivated.

1.2 The principle of multi-integration

In the development of modern society, the requirement of any enterprise for talents is to have good professional and technical ability, but also to have good quality and cultural level. Based on this requirement, in order to cultivate high-quality and high-skilled talents for the society Talents, when innovating the curriculum system under the combination of work and learning mode, it is necessary to break the previous teaching mode, not only to improve the students' interest in metallurgy learning through diversified teaching methods, but also to effectively integrate the choice of teaching content. In this way, the "necessary" and "sufficient" contents of the metallurgical course are clarified, and when the teaching objectives are highlighted, the effective training of students can be achieved.

1.3 Principles of Reinforcing Practice

The combination of engineering and learning is simply the combination of theory and practice in the education of metallurgical technology. Through the research on the education of metallurgical technology in our country's previous higher vocational education, it is found that most teachers have the concept of major theory and light practice. the unreasonable teacher's teaching theory makes the metallurgy major students in higher vocational colleges have a big gap between their theoretical ability and practical ability. Faced with this situation, it is

necessary to innovate the teaching of metallurgical technology major in higher vocational colleges under the combination of work and study mode. Strengthen the practical education of students, so as to balance the students' abilities through reasonable practical teaching.

1.4 The principle of unification of higher education and vocational education

In the continuous development of society, with the improvement of information technology and technology, the development of most industries in my country has changed. This development situation has led to the demand for talents in the development of some enterprises. In this case, in order to cultivate the compound talents needed by the enterprise in the metallurgical technology professional education of higher vocational colleges, in the process of technical education, in addition to strengthening the practical education of students, it is also necessary to strengthen the quality education of students. Therefore, it is necessary to develop such education and vocational education in a unified way under the mode of combining work and study, so as to effectively cultivate high-quality talents who integrate production, management and service.

2. REFORM IDEAS OF TEACHING CONTENT AND CURRICULUM SYSTEM FOR METALLURGICAL TECHNOLOGY SPECIALTY

2.1 Build a "project-oriented, task-driven" curriculum system

According to the research on metallurgical technology education in higher vocational colleges in my country, the major has a lot of content, including iron-making technology, steel-making technology, continuous casting technology and other content that students need to learn. There are certain restrictions. If all the content is studied in the study, it will not only fail to improve the students' learning ability, but also cause students to become bored with the study of metallurgical technology. When innovating, the different contents of metallurgical professional education can be classified, among which the important courses should be placed in the compulsory courses, and the less important courses should be placed in the elective content, so that students can choose the appropriate courses according to their own learning situation to learn [1].

2.2 The implementation of the course can be run in a segmented teaching mode

The segmented teaching mode is to divide the overall education of metallurgical technology majors in higher vocational colleges, and each divided part carries different contents of education. the reasonable implementation of the segmented education mode can improve the effect of metallurgical technology education in higher vocational colleges. bring about a significant improvement.

When the segmented teaching mode is adopted, the first part of the teaching link can be used to carry out quality education for students. the implementation of quality education is the basic requirement of our country's education and the main way to improve students' comprehensive quality. In the second part of the education, students can be educated about their sense of professionalism. Metallurgy is an industrial work. the working environment of this work is relatively harsh. Usually, production is carried out in an environment of high temperature and high pressure. Only after you have a full understanding of metallurgical work can you clarify the rules that you must follow in the work process. In the third part of education, students' practical teaching and theoretical teaching can be combined. This project is an important stage for students to learn metallurgy-related knowledge. Through reasonable learning at this stage, students can master the basic skills of metallurgical work. In order to effectively consolidate their own knowledge, students can set up practice learning in the fourth part after they have mastered relevant skills and knowledge through learning in higher vocational colleges. Students who practice in enterprises can be helped and guided by professionals. To understand the relevant content of metallurgical work, when students have an understanding of metallurgical work, they can effectively complete employment after graduation [2].

3. INNOVATIVE EFFECTS AND CHARACTERISTICS OF THE CURRICULUM SYSTEM FOR METALLURGICAL TECHNOLOGY

The innovation of the metallurgical technology education curriculum system in higher vocational colleges under the engineering model not only improves the rationality of education, but also improves the efficiency of teaching. Through the innovation of the curriculum system, students can learn in metallurgical enterprises, so they can To

ensure the unity of higher vocational courses and actual metallurgical work, the work tasks under the engineering model are the basis of teaching. This development method can reform the training evaluation method in improving the effectiveness of practical teaching. Through the application research of the innovative curriculum system under the engineering model, it is found that this education method not only has distinctive characteristics, but also can improve the results of metallurgical technology education in higher vocational colleges. In order to make the metallurgy education in higher vocational colleges always meet the needs of social development, it is necessary to follow the changes of the times to innovate the metallurgy teaching mode in higher vocational colleges.

4. CONCLUSION

To sum up, the combination of work and study is to combine the theoretical education and practical education in the professional education of metallurgical technology in higher vocational colleges, so as to realize the teaching, learning, teaching and learning of metallurgical technology education in higher vocational colleges through the combination of theoretical education and practical education. To make a balance, in order to ensure that the innovation of the curriculum system under the combination of work and study can bring about the improvement of teaching results, the innovation of the curriculum system needs to be carried out in accordance with the principles of multiple integration, strengthening practice and the unity of higher education and vocational education.

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