

Teaching Reform of Construction Organization and Management of Water Supply and Drainage Specialty

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Abstract: Yulin college aims to cultivate applied talents, the construction organization and management course is a practical course, here combined with the characteristics of water supply and drainage professional, analyzed some problems in the present situation of teaching this course, and from teaching materials, practical, the nature of the course, and teaching methods to explore the teaching reform, put forward the corresponding solutions, to engage in the site construction and management of water supply and drainage professional related to lay a good foundation.

1. Introduction

Construction organization and management is a professional quality development course of water supply and drainage science and engineering in Yulin College. This edge discipline has strong practicality and comprehensiveness, involved in various aspects knowledge, such as the construction of laws and regulations, organization, technology, economic contracts, information management and so on, mainly for the various types of construction projects, combined with the specific environmental conditions, economic conditions and site construction conditions, organization construction. Such as creating construction scheme and construction schedule, the rational allocation of resources, the construction plane design and other activities. At the same time, in order to scientifically and reasonably ensure the completion of the project with high quality, low cost and little energy consumption, it is necessary to make measures related quality, environment, progress, and resource information ,for it can lay a good foundation for the site construction and management related to water supply and drainage.

At the same time, this course is also a national registered cost engineer, first and second class construction engineer, registered supervision engineer, registered equipment sharing engineer and other related examinations required by engineering students.

2. Analysis on the Teaching Status of Construction Organization and Management of Water Supply and Drainage Specialty

2.1 The Redundancy and Conservatism of Course Materials

At present, the textbook for water supply and drainage students is the engineering construction organization and management edited by Cao jiming. Just like the other related books, the overall framework of the book is relatively comprehensive and the content is diversified. First of all, the book of this course is highly targeted on the whole. It is a compulsory course for the major of construction engineering. The examples quoted in the book are basically professional contents of the construction industry, which is difficult and boring for students. Secondly, the more important section of the book describes the principle of the larger space, ignoring the practical application of the comprehensive. For example, when organizing the construction of water flow, the textbook only gives a simple sentence with the sequence of layered construction, and does not list actual cases to organize layered construction of water flow, which is not conducive to the students later from the integrity of the organization of construction and management work. Thirdly, the textbook revision

as a whole is progressive obviously. Many new technologies and processes have been added in the book. For example, BIM construction scheme simulation is added in new revision of book, but the content is too short and only limited to introduction.

2.2 Theory is Not Closely Connected with Practice

Water supply and drainage major students after graduation, most of the employment direction is also construction units, but compared with civil construction major, the course does not set up a special practice link. In addition to professional restrictions, construction units for safety reasons, also do not want to accept students to practice. Water supply and drainage students practice in addition to the site of major water plants, is already into the installation phase of the building. Therefore, the whole process for a construction project is incomplete. It is also unfavorable to the construction and management of the whole construction project. As a result, theory and practice cannot be fully connected.

2.3 The Curricular Characteristics is Ignored and the Assessment Method is Simplified

Students play the leading role in teaching. The role of teachers is to stimulate students' interest and mobilize students to study subjectively. This course is a quality development course for water supply and drainage students. Assessment for students is the usual performance and open book examination. The course starts in the busiest semester of the junior year. Compared with the well-targeted specialized courses, the overwhelming number of experimental courses and the design of multiple courses, students obviously paid far less attention to this course than other courses. So it is far from the effectiveness of learning to use and it is not good for the promotion of post skills effect. For a wide variety of microorganisms, to place it in a specific process environment, from the analysis of it in the process of action principle, and further contact its physiological behavior, and its research progress and application in other practices, and expand the application scope of knowledge for students, late for one's deceased father grind the road.

2.4 The Shortcomings of Teaching Method

Yulin college is an institution of higher learning that cultivates applied talents. Students are required to have certain practical application ability. Therefore, the teacher must have a wealth of theoretical knowledge, but also requires a skilled practical experience. However, the construction organization and management courses in most colleges and universities still adopt traditional classroom teaching. Most of the construction organization practice activities are taught to students through the teacher's description. The whole process is relatively boring. In addition, water supply and drainage students site practice experience is not as good as civil engineering and most of the practice cases are based on the background of civil construction. It is relatively tedious and difficult for students to understand.

3. Teaching Measures Reform of Construction Organization and Management of Water Supply and Drainage Specialty

3.1 From the Textbook, Beyond the Textbook

The teaching material is based on the construction organization and management of Cao jiming. For each chapter, we keep the essence and remove the redundancy. For the more important chapters, keep the original important theoretical exposition in the textbook. At the same time, it is necessary to supplement the defects in the practical application of the textbook, which fully reflects the comprehensiveness of the important content. In addition, for the civil engineering cases in the textbook, the textbook contents should be supplemented and replaced by some examples related to water supply and drainage. It is helpful for students to understand. Finally, for the revised textbook and the addition of BIM construction simulation knowledge, it is necessary to expand knowledge points and broaden students' knowledge scope.

3.2 Paying Great Attention to the Integration of Theory and Practice

For water supply and drainage students, the annual practice unit is nothing more than a number of water plant power plant and construction of late installation. Students can not understand the systemic integrity of the entire construction industry sufficiently. In the later stage, Yulin colleg will strengthen the practical activities of this part and encourage students participate in the practice activities of civil engineering and engineering management actively. On the one hand, it expands the scope of knowledge of the students, and on the other hand, it lays a foundation for the case in the textbook and the assessment of the second-level architect. Meanwhile, the BIM training base of the school of architectural engineering has been built. In the early stage, teachers have participated in relevant training, and in the later stage, after continuous improvement, in order to implement the content of simulation of BIM construction scheme fully ,students can be continuously introduced to BIM training .

3.3 Emphasis on Curriculum Practice, Diversified Assessment Methods

This course is a quality development course, it is exactly consistent with the training objectives of applied talents in our colleges and universities. This course connects students' first step into the society to some extent. After entering the construction unit, students are immediately faced with the examination of the second-level constructor, which was a necessary condition for me to be the project manager. At the same time, the practical application of this course is quite strong, which can pave the way for students to play roles in the social circle. For example, how to deal with the harmonious relationship between the construction party, owner party, supervisor party, construction party, material and equipment supplier and the surrounding residents in a project. As for the assessment of this course, the traditional assessment method should be broken step by step and the learning results of this course should be flexibly reflected.

3.4 The High Efficiency of Teaching Method

At present, most colleges and universities basically adopt the way of combining multimedia and blackboard writing, but they rely too much on multimedia, So the teaching effect is not good for a large amount of content. Therefore, multimedia should be effectively used. For the elaboration of the theoretical part, we can use multimedia to simplify the theoretical introduction and intersperse some pictures and video to enrich the teaching content. But for some coherent calculation problems, such as the flow method, it can be set with the help of multimedia, but the specific calculation steps still requires the teacher make boards. The effect will be far better than the PPT browsing teaching network.

4. Conclusion

For water supply and drainage, mainly lay particular stress on the installation project, the direction of work is mainly to the construction unit. In view of the particularity of the specialty, it is necessary to reform the course of construction organization and management, we mainly from the teaching materials, theory and practice, curriculum positioning and teaching methods. Through simplifying the content of teaching materials, increasing the length of new technology and new cases, breaking the heavy and conservative nature of teaching materials; Through increasing the internship scope of water specialty and participating in the training of BIM practical training course, the correct combination of theory and practice can be realized; Through the examination of the second-level constructor as an example, and the diversification of the final assessment methods, to improve the attention of students; Through efficient use of multimedia, flower-style teaching and increasing students' dialogue rate, the teaching quality and effect of this course can be constantly improved. In a word, the teaching reform of this course will lay a good foundation of knowledge and practical experience for water supply and drainage major students to engage in construction units, supervision units and related industries in the future, and better combine construction and management, which is conducive to long-term development.

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