

Research on Training Standards of Applied Talents for Engineering Cost Specialty

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ABSTRACT. Since the 21st century, China's real estate industry has developed by leaps and bounds, which has also promoted the innovation of engineering cost specialty. With the rapid development of higher vocational education, the number of schools and students enrollment rate have increased rapidly, and various specialties have been continuously refined, which makes the cultivation of talents with new professionals in higher vocational colleges face new challenges in recent years. With the rapid development of the construction industry and the implementation of the qualification system for cost engineers, higher requirements are put forward for the training of engineering cost talents. The construction industry needs a group of highly skilled talents and applied talents who are proficient in economic evaluation and analysis, engineering cost measurement and valuation of construction projects. They understand both construction technology and economy, management and legal knowledge. The first step is to meet the needs of grassroots talents. This paper starts with the talent target orientation of the engineering cost specialty, analyzes the standards of the current engineering cost specialty talent training, and analyzes the application-oriented talent training standards of the engineering cost specialty.

KEYWORDS: Construction industry, Project cost, Personnel training

1. Introduction

Since the 21st century, the explosive development of China's real estate industry has boosted the engineering cost consulting industry. After graduation, students majoring in engineering cost are mainly engaged in construction, design, consulting, financial units and departments, with construction projects as the object [1]. During the whole process from project initiation choice to completion and production, cost determination, optimization, control and management are carried out around the project in order to utilize the resource most effectively and ensure the benefits of the construction project, the legitimate rights and interests of all parties involved in the construction [2]. With the full opening of the construction market, the construction industry needs a group of highly skilled and applied talents in engineering cost who are proficient in economic evaluation and analysis of construction projects, engineering cost measurement and valuation, and master not only construction engineering technology but also economic, management and legal knowledge [3]. Judging from the professional development of engineering cost practitioners, becoming a cost engineer is the professional development goal of the vast majority of engineering cost practitioners. The business fields involved in the engineering cost industry are also expanding, therefore, the objectives of personnel training must be updated accordingly, and the training programs and standards should also be adjusted appropriately with time going by [4]. Thus, the engineering cost major is urgently required to establish a more scientific and comprehensive training system which is in line with the demand of the market. With the rapid development of higher vocational education, the number of schools and the enrollment rate has increased rapidly, and the specialization of various majors has been continuously refined, making the cultivation of new majors in colleges and universities face new challenges in recent years. The goal of personnel training of engineering application cost major is to first meet the requirements of grassroots talents, that is, to train professional talents according to the needs of the cost engineer's work ability to ensure that graduates can get employment smoothly in the fierce market competition by relying on their professional quality [5]. The current project cost management has extended the scope to the entire construction cycle. Talent is the key factor of project implementation, and it is also the case in the field of project cost. With the rapid development of the construction industry and the implementation of the cost engineer qualification system, higher requirements have been put forward the cultivation of engineering cost talents [6]. The professional level and standards of the cost engineer are constantly improving, and the business field is also expanding. Therefore, the goal of talent training must be updated accordingly, and the training plan should be adjusted appropriately with the times [7]. This paper starts with the target positioning of engineering cost majors, analyzes the current standards for engineering cost majors, summarizes the basic and development abilities of engineering cost graduates, and analyzes the standards for engineering cost professional talents.

2. Social Needs of Engineering Cost Major

With the accelerated development of China's economic situation and the rapid growth of its national strength, construction industry, as a pillar industry, has made increasing contribution to the national economy year by year. The development of construction industry in all regions is generally optimistic. After China's entering to the WTO, the cost engineer qualification system has been implemented. If the professional level of the traditional "budget accountant" is maintained, it will not be able to meet the requirements for the determination and control of project cost in the whole process of contemporary construction projects, and it will not be able to adapt to the competitive environment in the international market. In the medium and long term, according to the analysis of the general trend of China's economic and social development, the construction industry will still be an industry with broad prospects for development. After that, the demand for construction talents has increased dramatically [8]. With the rapid development of the construction industry in our country, being suitable for the engineering cost specialty, the professional posts will be expanded from the traditional construction industry to real estate industry and investment industry. With the reform in the field of engineering cost, higher requirements are put forward to make engineering cost professionals specific. Therefore, our country is in urgent need of training a large number of high-skilled and application-oriented talents with certain professional basic theoretical knowledge, strong practical ability and professional ability to adapt to the engineering cost post group at present.

Engineering cost specialty is a subject which integrates engineering technology and engineering management. Technicians engaged in this field should have knowledge of engineering technology, engineering management, laws and regulations, etc. When making the professional training plan, we should consider setting up appropriate basic theory courses to ensure the ability of professional talents to continue re-education. Project cost management personnel are specialized personnel engaged in measurement and valuation of project, bid quotation and contract analysis management, claim calculation and management, project price payment and settlement management, project investment and cost analysis, project management, etc. In designing the curriculum system, the theoretical knowledge that professionals must possess should be set as the backbone curriculum, which fully reflects the organic combination of technical, economic and management knowledge and trains compound engineering cost professionals. At present, the cost consulting market is dominated by accounting and asset evaluation talents, and lacks talents with comprehensive quality, especially engineering cost technology. While personnel training, trainers must recognize the social needs and post needs, correctly position the direction of personnel training, clearly define the training objectives and specifications, combine with the characteristics of higher vocational courses, improve and optimize the teaching staff.

3. Guiding Ideology and Training Objectives

3.1 Guiding Ideology

At first, the engineering cost specialty was only a branch of the engineering management specialty. Therefore, the training of engineering cost professionals in the past mostly depended on the training direction of the engineering management specialty. The talent objective of application-oriented undergraduate colleges is to train application-oriented undergraduate talents facing the front line of production and management. The design principle of the curriculum system should be in accordance with the new personnel training objectives, in line with China's national conditions. To reflect the characteristics of the times and the concept of modern education, the new curriculum system should be conducive to the coordinated development of students' knowledge, ability and quality. Any kind of practicing qualification has its corresponding admittance system, which is mainly reflected by the requirements of the examinees in the practicing qualification examination. The curriculum should be based on the whole process of engineering cost. Engineering cost specialty can be divided into two directions: engineering technology and economic management, but the core curriculum should be consistent. Many problems in the related fields of engineering cost business need to be solved by using the knowledge of economic platform, management platform and legal platform courses, with more emphasis on the mastery of professional knowledge in the medium or macro level. Cost engineers, as applied talents of engineering, rely on their professional knowledge, basic theories and basic skills to transform theoretical knowledge into practical production capacity.

3.2 Talent Training Objectives

The talent training goal of engineering cost specialty should be oriented to train practical professionals for the front line of engineering construction. Application-oriented colleges train corresponding undergraduate talents, and their professional abilities should meet the requirements of middle-level talents of engineering cost professionals. The engineering cost specialty is a practical specialty, and there lack high-level professional and technical personnel related to the specialty. The development ability of cost engineers can be understood as some professional skills related to

engineering cost business [9]. The knowledge structure standard of the qualification examination for cost engineers requires cost engineers to be familiar with bidding strategies and methods. Students should have noble ideological and moral qualities, good humanistic and psychological qualities, solid practical skills and extensive professional knowledge. Students in this major should have strong skills in map reading, computer application and operation, basic listening, speaking and writing skills in foreign languages, and be able to read and translate professional materials. At present, there is a lack of practical training bases related to project cost, and the exploration of talent training modes of integration of production and education and cooperation between schools and enterprises is insufficient [10]. We should actively expand the construction of practice and training bases and training centers, and seek cooperation modes with industrial enterprises. The level of enterprise quota varies with the difference of enterprise's technical equipment, management ability and personnel quality. The formulation and use of enterprise quota has become a bottleneck restricting the construction management and business development of many construction enterprises, which is also a difficult problem faced by engineering cost practitioners. Students should master the knowledge of civil engineering, installation and decoration drawings, understand the engineering and technical knowledge of building materials, construction and other aspects, understand the basic economic and management knowledge of economy, management, accounting and auditing, and understand the relevant knowledge of project cost management, contract law, contract management and other knowledge.

4. Conclusion

China's society and economy are in a period of development, and the requirements of various industries for professional competence standards should also be changed according to the needs of time and practice. At present and in the future, China urgently needs to cultivate a large number of high-skilled and applied talents with certain professional basic theoretical knowledge, strong practical ability and professional ability to adapt to the post group of engineering cost. Personnel training must understand the social needs and post needs, correctly position the direction of personnel training, clearly define the training objectives and specifications, combine with the characteristics of higher vocational courses, improve and optimize the teaching staff. It is a long-term and arduous task to reform the application-oriented personnel training mode of engineering cost specialty, which requires the joint efforts of all teachers and students to ensure the realization of training objectives. Many problems in the related fields of engineering cost business need to be solved by using the knowledge of economic platform, management platform and legal platform courses, with a more emphasis on the mastery of professional knowledge in a meso or macro perspective. The training of application-oriented talents of Engineering Cost Specialty in colleges and universities should be based on the principle of innovation and sustainable development, establish more scientific training objectives, and build a curriculum system of application-oriented talents.

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