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## Study on the engineering practice course education teaching reform

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### Abstract

The engineering practice teaching related to civil engineering students professional technology and practical ability of the students, In relation to their future can adapt to the society have talent market demand and high ability important segment. According to the characteristics of students, combined with the registered engineer examination system, the practicality course teaching contents of research, optimize the practicality course reform teaching link, strengthening civil engineering student quality training and performance, and is the key.

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**Keywords:** Civil engineering specialty; Engineering practice; Teaching reform; Registered engineer examination system.

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### 1. Introduction

The real estate profession is the state economy and social development pillar industries one. In recent years, our country economic development's fast development was increasing unceasingly to the building class talented person's demand, institutions of higher learning civil engineering specialized recruitment of students scale also in corresponding expansion. The civil engineering specialized practical curriculum teaching, in the adaptation human resources pool demand, achieves in the specialized raise goal to play the vital role, also after is the student graduates, starts the practical work a preview.

Institutions of higher learning's duty is the talented person who the raise meets the social need, must achieve this goal, it is necessary to unify registers engineer the practice qualification test system, in

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curriculum aspects and so on teaching media, ability raise conducts the thorough research, causes the practical teaching curriculum to play the twice the result with half the effort role.

## 2. Existence question and present situation

The civil engineering construction covering aspect of knowledge is very broad, this discipline is following the new knowledge, new technical, the new craft, the new material in project application, but the rapidly expand, this request civil engineering construction class talented person must have the broad aspect of knowledge and the new knowledge structure. Obviously, in undergraduate course 4 year, masters the above knowledge is comprehensively not realistic, therefore, take “must, sufficient” as the principle, takes and strengthens the practical teaching link, trains the student to apply the new technology, the new craft with emphasis, as well as the new management idea will solve the actual problem which in the project will appear, the accomplishment is producing one to be engaged in the design, the construction, the management application talented person in the future is the present civil engineering specialized most important task.

The civil engineering specialized application undergraduate course personnel training, is the overseas engineering course institutions of higher learning civil engineering specialized personnel training goal and the popular procedure, the student and the enterprise and society's union is quite close, quite many projects carry on by the student team's form in the construction enterprise. Our country institutions of higher learning also started the research in recent years about the application civil engineering talented person's raise, but are also very few for the construction profession raise application civil engineering construction talented person aspect's research.

With the rapid development of China, construction industry, construction companies have some experience on the operational capacity of the construction workers have become increasingly demanding. Construction personnel to expand capacity, mobility, training is not timely, relatively low quality, engineering accidents have occurred. Construction companies need to understand technology, will manage the construction of specialized personnel. Therefore, applied for the construction of civil engineering enterprises to train construction personnel is necessary.

System is a registered engineer qualification system, is the country related to people, lives and property of the various types of construction practitioners to implement an access system. With the qualification certification system of continuous improvement, civil engineering technicians not only need good professional knowledge and skills, but also need to obtain the necessary qualification certificates. The construction sector registered engineer qualification system in the implementation of civil engineering disciplines, undoubtedly played a certain teaching guide on the civil engineering profession in the practical aspects of teaching reform put forward new requirements.

## 3. Optimizing Teaching

Examination system to adapt to a registered engineer, civil engineering students to enhance quality education, have in-depth study and implement the scientific concept of development, civil engineering majors, that's key problem is practice. Practical aspects of improving the level of teaching, you have to adhere to people-oriented education to education, student-centered; school to people-oriented, the concept of the teacher as the main<sup>[1]</sup>.

*3.1. Students understand and use the construction manual and other norms, concerns registered engineer examination system.*

Various standards of professional and technical personnel in civil engineering survey, design, construction, inspection is based on provisions in the civil engineering profession in the learning process, most students in teaching learning-based, and less to read and learn norms, which broke away from the work of a future civil engineer must follow the basic theory. In the teaching process in a timely manner the provisions of the specification cited to explain that, you will receive good results. Meanwhile, combine the contents of examinations of registered engineers in the teaching process to guide and explain the timely and rational selection and organization of contents, teaching and assessment in the curriculum content, appropriate to add some.

### *3.2. With professional software for teaching, students of engineering practice awareness.*

As a future civil engineer in the teaching process we must have a conscious awareness of engineering students. Think of ways to create a good engineering environment for students in a project environment to live and study, so that students feel that project ever, everywhere, in monasteries in the feelings of Engineering, accepted works in the subtle sense of the training project. This work, we have students practice teaching in a conscious and did it, but some specific classes also requires us to further study.

In order to better enable students to understand and master the theory of project cost, the traditional teaching process, have stressed the traditional method, list of quantities, according to engineering calculation rules for manual calculations to apply a fixed fee of the project cost reached However, in practice a number of computer-aided engineering software applications are calculated, for example, Guang-lianda of pricing software. To enable students to leave school will be able to adapt to working environment, students should be promoted after the manual calculation software with a number of professional computer-aided design, and results were compared with two designs, it will get better results.

### *3.3. Of case teaching, allowing students to gradually adapt to the contents of a registered engineer qualification examination.*

Case teaching as a teaching model to students has very important significance. Reasonable and effective case teaching can combine theoretical teaching to maximize learning efficiency and learning interest. Moreover, a registered engineer qualification examination, the case is more difficult exam passed, in teaching, we have a sense of the various cases will be incorporated into classroom teaching, not only enhances the fun, but also so that students feel a registered engineer exam the theme of flexibility. Enhance the future ability to participate in actual combat registration examination.

### *3.4. Practice of Engineering Management of distance learning courses.*

Modern communications technology and network development to make communication between people has become easy and fast, QQ, flying letters, text messages, e-mail is our primary means of distance learning. Comprehensive comparison, QQ group can achieve more than one person involved in real-time communication, is the best distance learning mode.

QQ-based group has a strong distance learning mode of interactive communication platform that enables teachers to keep abreast of student learning, for different characteristics of students in practical field guide to identify effective learning objectives, develop a learning plan. The course of the internship, the learning content, strategy, approach to guidance<sup>[2]</sup>.

## **4. Conclusion**

Registered Engineer typically contains assessment of higher education, professional practice, qualifying examination and registration of the four processes. As an industry-access system, only to reach the national standard of the technical staff to register, such standards by the standards of education, practice, practice standards and testing standard components.

National Higher Education Assessment Committee Architectural Engineering Chapter Constitution Article II states that higher professional education construction projects aimed at strengthening national evaluation of engineering professional education on building the macro-management, guarantee and improve the basic construction quality of professional education, more Good education must implement the basic policy of socialist construction. And the construction of College Graduates are eligible for registration to participate in teacher education standards tests for the developed countries and the international mutual recognition of professional qualifications to create similar conditions. This is very clearly pointed out the professional assessment of the relationship between the system and registered engineer, provided<sup>[3]</sup>.

Therefore, the civil engineering major, not only attach importance to professional base and to strengthen practical teaching of learning, and attention should be paid up for the study of CSE exam, as soon as possible so that their ability to meet the quality requirements of registered engineers in order to adapt the work as soon as possible, in order to community to create value.

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