

Discussion on Political Construction of Circuit Course

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Abstract. Under the background of engineering, in order to achieve the teaching goal of "Cultivate people with virtue", the ideological and political construction of engineering courses pays more attention to strengthening students' engineering ethics education, cultivating students' spirit of striving for excellence as a great country craftsman, stimulating students' feelings and mission of serving the country with science and technology, so that to help students get better knowledge and skills. The paper takes the course of circuit as an example, organically integrates the ideological and political elements of the curriculum into the learning process of the circuit curriculum so that to eliminate students' fear of difficulties in curriculum learning, and increase their self-confidence by excavating the ideological and political elements in the circuit curriculum, carrying out reasonable curriculum design.

1 Introduction

"It takes a teacher to transmit wisdom, impart knowledge, and resolve doubts." said in <Teacher's Talk>. The primary and fundamental task of teachers and schools is to "transmit wisdom", that is to "Cultivate people with virtue". Without the "wisdom", teaching (knowledge and skills) and solving puzzles (difficult problems) will lose their fundamental value, direction and significance. In order to achieve the teaching goal of "Cultivate people with virtue", the paper takes the course of circuit as an example, discusses in the process of learning of engineering courses, how to achieve the organic combination of "physical fitness", "mental health" and "soul building" through the ideological and political construction of courses.

2 The interpretation of Ideological and political education in the curriculum under the background of Engineering

The Ministry of education pointed out in the guiding outline for the ideological and political construction of higher education courses that comprehensively promoting the ideological and political construction of courses is a strategic measure to implement the fundamental task of Building Morality and educating people [1]. As a professional education course, it is necessary to deeply study the educational objectives of different specialties according to the characteristics and advantages of different disciplines and specialties, deeply explore and refine the ideological value and spiritual connotation contained in the professional knowledge system, and scientifically and reasonably

bly expand the breadth, depth and temperature of professional courses.

Therefore, in the context of engineering, the goal of professional courses is "health and intelligence", that is, to let students complete the knowledge and skills reserve of the course; At the same time, it is also the basic carrier of curriculum ideological and political education. The ideological and political construction of engineering courses pays more attention to strengthening students' engineering ethics education, cultivating students' spirit of striving for excellence as a great country craftsman, stimulating students' feelings and mission of serving the country with science and technology, helping students to better complete their learning of knowledge and skills, and achieving the goal of "health and intelligence"[2]. They complement each other. As a result, the essence of ideological and political construction is the educational concept and method of "curriculum carries ideological and political education, and ideological and political education resides in curriculum", rather than regarding professional courses as a ideological and political course. Taking the circuit course as an example, "circuit" is not only an introductory professional course for engineering students who are connected with electricity, but also an important course for cultivating students' practical ability and innovation ability [3]. To carry out the ideological and political construction of the circuit course, it is first necessary to clarify the course objectives, "planting a good field of responsibility" is still the primary task of the course.

On this basis, ideological and political elements of the curriculum should be integrated into the learning process of the circuit curriculum by mining the ideological and political elements and carrying out reasonable curriculum design. It can eliminate students' fear of difficulties in

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curriculum learning, enhance learning self-confidence, and increase the political, military, intellectual and humanistic nature of the curriculum.

3 Goal of Ideological and Political Construction

According to the deployment of the guiding outline for the ideological and political construction of college curriculum issued by the Ministry of education, the ideological and political importance of the curriculum is comprehensively promoted in all colleges and universities and disciplines across the country. This means that curriculum ideological and political education is not only the work of Ideological and political theory courses and their teachers, but also the responsibility of all teachers. Professional knowledge is required to be supplemented by ideological and political education [4]. Curriculum and curriculum ideological and political education complement each other, resonate with each other at the same frequency, and achieve the goal of education.

In the process of Ideological and political construction of the curriculum, teachers are the core element. Ideological and political teaching of the curriculum is closely related to teachers' professional ideals, sense of responsibility, ethics and preaching ability. Teachers should always take "learning high and being upright" as the lifelong teaching concept.

In the process of Ideological and political construction, "learning high" requires teachers not only to have a solid knowledge reserve, but also to have the spirit of continuous learning. As an educator, we should constantly and actively learn and absorb the most cutting-edge professional theories and military theories, understand various social science and cultural knowledge, and pay attention to domestic and international current events. On the one hand, this can form an example effect of "teaching by words and deeds" among students, build up the prestige and personality charm of teachers, and establish a trust relationship between teachers and students; On the other hand, it can better understand what students want and what they are interested in, so as to better and more naturally insert ideological and political elements into the teaching process. "Integrity" requires teachers to have good and constantly improving professional qualities. In the process of Ideological and political construction, teachers are the main body of implementation. Teachers should influence and educate students and influence the results of Ideological and political construction of the curriculum with the best ideological realm, mental state and behavioral performance. In the process of professional curriculum development, students should master the knowledge and skills they have learned. Teachers' careful and sufficient preparation before class, courseware production, course design, knowledge explanation and other aspects of basic skills and accomplishments are all influencing students imperceptibly. Let students feel the rigorous and serious attitude of teachers, so that they can

establish a serious and serious learning attitude faster and better, and achieve teaching goals more efficiently [5].

Contemporary college students have flexible thinking, strong ability and potential to understand new knowledge, new things and new technologies, and more diversified knowledge structure. With the rapid development of Internet technology, the channels for students to receive information are diversified, which is like a double-edged sword. On the one hand, it greatly broadens students' cognitive range and increases their thirst for learning new things and knowledge; On the other hand, in the current social transformation period of rapid economic development, the collision of old and new ideas, the conflict of values, and the penetration of multiculturalism have all posed new challenges to college students whose moral concepts and personality development are still immature.

The ideological and political construction of professional courses is an important link to further improve the ideological and political education of contemporary college students. Under the background of engineering, the teaching objectives of professional courses focus on knowledge objectives, ability objectives and quality objectives, that is, fully developing and making use of the characteristics of students' "many ideas", constantly improving students' ability and accomplishment, and achieving the goal of "strong ability". The ideological and political construction of the course is based on the above objectives, endowing the course with perceptual factors, including political identity, family and country feelings, cultural literacy, moral cultivation, etc., strengthening rational thinking, deepening ideals and beliefs, establishing a correct outlook on life, world outlook and values, establishing lofty ideals and beliefs, and cultivating students' team cooperation, courage to innovate, rigor and precision, conscientiousness and responsibility, and meticulous craftsmanship. Through the introduction of Chinese traditional cultural elements, students' cultural self-confidence, theoretical self-confidence, system self-confidence and road self-confidence will be established, so as to achieve "sufficient confidence" and "three positive outlooks", so that professional courses can return, curriculum values can be realized, and education goals can be better and more effectively achieved.

4 Implementation method of Ideological and political construction of circuit course

The ideological and political construction of the course needs to constantly explore the integration of the key points of circuit teaching and ideological and political elements, and design reasonable implementation methods. Taking "circuit" as an example, the main measures of Ideological and political construction of the course is shown like Fig.1.

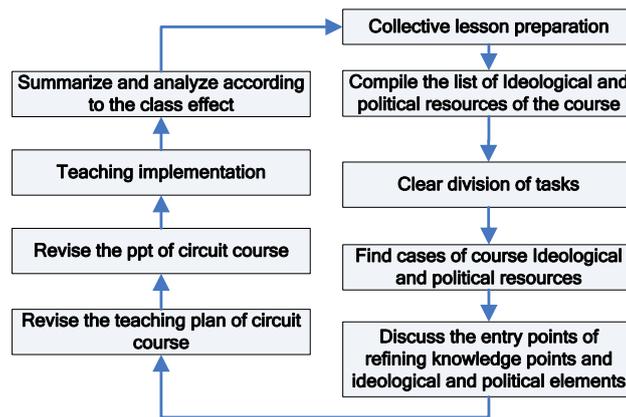


Fig. 1. Ideological and political construction of circuit course process [Owner-draw]

(1) First of all, through collective lesson preparation, fully absorb the wisdom and teaching experience of the course group, determine the entry point of Ideological and political education in circuit courses according to the characteristics of circuit courses, and clarify the requirements of Ideological and political education in Circuit Courses. The circuit course is a typical professional course of engineering. According to the guidelines, the course focuses on Strengthening Students' engineering ethics education, cultivating students' spirit of striving for excellence as a great country craftsman, and stimulating students' feelings and mission of serving the country with science and technology. Therefore, the dissemination of Ideological and political education in the circuit course is mainly the cognition after the summary of natural science and social science, which requires teachers to comprehensively learn and understand the contents of economy, politics, culture, ecology, sociology and so on, so as to have evidence in teaching. Then, through the form of collective lesson preparation, we can find the hidden ideological and political elements from the huge circuit teaching content, explore the integration of the key points of circuit teaching and ideological and political, design reasonable implementation methods, and calmly insert the ideological and political elements of the course into the teaching process.

(2) Combine the contents of the circuit course, mine the ideological and political resources contained, compile the list of Ideological and political resources of the circuit course, establish a teaching case library, select and compile typical teaching cases of Ideological and political education, and compile a complete teaching reference materials and teaching document library with curriculum characteristics.

According to the teaching plan of the circuit course, the main learning contents of the circuit course include DC circuit analysis, sinusoidal steady-state AC circuit analysis, complex sinusoidal steady-state AC circuit analysis, dynamic circuit starting analysis, dynamic circuit complex frequency domain analysis, etc. It can be

seen from the content that the circuit course is strict in theory and strong in logic, which is easy to make students fear difficulties and affect the learning effect. At this time, Integrating Ideological and political theory into teaching, by looking for the entry point of professional knowledge points and ideological and political elements, taking the current hot issues of the country and society as guidance or extension, combining the knowledge points of Circuit Courses for analogy, and Integrating Ideological and political elements into the teaching process of professional theoretical knowledge, we can make ideological and political elements and professional knowledge complement each other, make boring theoretical knowledge easy to understand, and improve students' interest in learning, To achieve the goal of Ideological and political construction. For example, in view of students' fear of difficulties in circuits, the main reason is that they do not understand the circuit curriculum. At this time, the introduction introduces the development history, learning characteristics and analysis process of circuits, so that students can understand that the circuit curriculum is the first professional basic course connected with electricity. In the future, their jobs will inevitably collide with electricity. Although there are many knowledge points and complex contents in the circuit course, it also has its own biggest feature, that is, circuit analysis will also be accompanied by many methods, which means that "all roads lead to Rome". It is also very interesting to find solutions to problems leading to Rome. Encourage the students to find the circuit method that they can find, or the best way to "Rome", solve the problems of circuit analysis, find the pleasure of learning circuits, and then virtually resolve the students' confusion and fear of difficulties.

(3) According to the ideological and political resources of the course, follow the teaching rules of the circuit course, design reasonable ideological and political teaching strategies, and complete the teaching design. The key points of teaching design are shown in Fig.2.

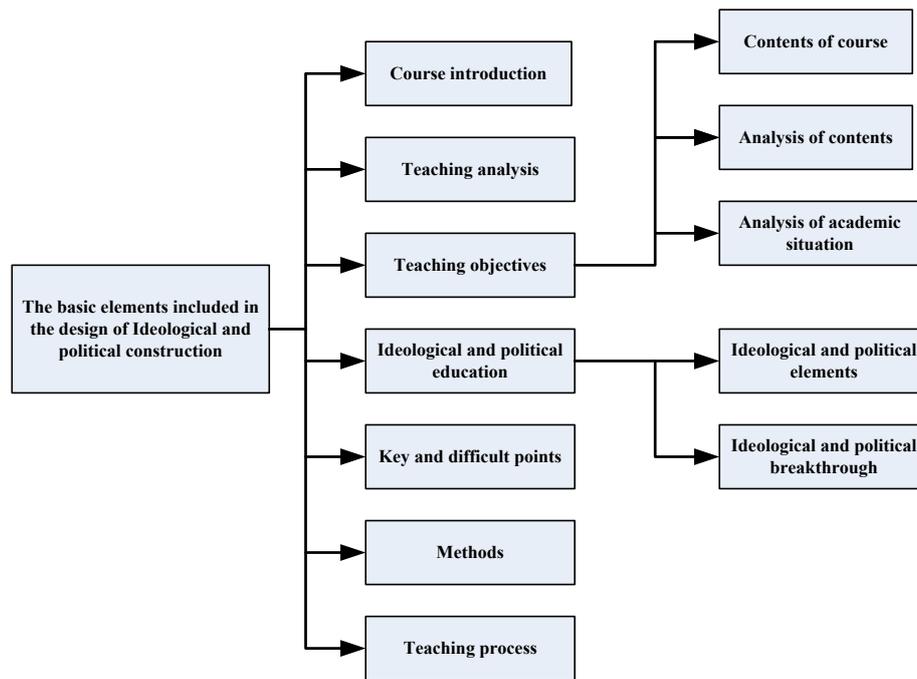


Fig.2 Basic elements of teaching design in Ideological and political construction [Owner-draw]

In the ideological and political link of the curriculum, according to the accumulation of elements in the established ideological and political library, the ideological and political elements can be cut into the teaching process through by measures such as special topics introduction, Random penetration, Practical experience and imperceptible implementation measures.

Introducing special topics refers to introducing common ideological and political topics when talking about a certain professional knowledge point, displaying cases through PPT, and then carrying out analysis and discussion.

Random penetration refers to the concise prompt of Ideological and political points in the teaching process of circuit professional knowledge, which plays a finishing touch role.

Practical experience means that through self-study and summary of online courses, circuit experiments and other practical operations, we should have a personal experience of Ideological and political elements such as "hand and brain, creative analysis, and continuous acquisition of new knowledge in practice", and shape the thinking, habits and spiritual qualities of students' professionals.

Imperceptible refers to teachers' strict requirements for classroom discipline, serious and rigorous attitude towards work, care and love for students, set an example as a teacher, set an example by words and deeds, spring breeze and drizzle, moisten things silently, imperceptibly

(4) After the course, feedback the implementation effect of the ideological and political construction of the circuit course through communication, discussion and assessment with the students, and then revise and improve the ideological and political construction of the circuit course in real time through collective lesson preparation, group discussion of the course group and other forms according to the feedback results.

5 Conclusions

In a word, under the background of engineering, students should not only learn professional knowledge and skills well, but also make the curriculum carry ideological and political education and integrate ideological and political education into the curriculum through the ideological and political construction of the curriculum, so as to complete the return of professional curriculum, realize the real curriculum value, and better and more effectively achieve the educational goal.

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