

# Research on the Method and Path of Ideological and Political Education in Engineering Majors

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**Abstract:** This paper analyzes the current situation of teachers' insufficient understanding, humanistic quality to be improved, and insufficient professional ideological and political education resources in the current ideological and political construction of engineering courses. The main points of ideological and political construction. The current situation of the teaching of transportation major courses, fully explore the ideological and political education resources contained in professional courses, combine professional course knowledge points with ideological and political points, reform classroom teaching, and finally make ideological and political education truly integrated Professional class.

**Keywords:** *Ideological Education, Political Education, Engineering Majors*

## I. INTRODUCTION

In order to effectively integrate into the teaching of professional courses, curriculum ideology and politics must establish a case base, and learn to flexibly use the successful cases in the case base, gradually solidify the hidden ideological and political resources contained in the teaching of professional courses, and avoid the loss of hidden ideological and political resources. For some majors in science and engineering colleges, curriculum ideological and political design should be combined with the actual talent needs of the major in the current society. The design process cannot be separated from the concepts of "country and nation", "professional ideals and professional ethics", and "responsibility and struggle". It is necessary to fully explore the ideological and political elements contained in the school's development characteristics and background, and use well-known figures or a certain successful event in the development of various disciplines to motivate students to study hard.

Curriculum ideology is a curriculum teaching concept. With the goal of cultivating people by virtue, by excavating the elements of ideological and political education contained in various courses, the organic unity of professional knowledge imparting and ideological and political education is realized, and then a multi-party education pattern of various courses and ideological and political courses is constructed. Curriculum ideology requires teachers of all disciplines to participate in the process of ideological and political education. Professional course teachers integrate implicit ideological and political education into explicit ideological and political education by fully exploring the ideological and political education resources inherent in the curriculum and integrating them into curriculum teaching. Professional education, to achieve full education, all-round education. In recent years, curriculum ideological and political education has been transformed from local practice exploration to national strategic deployment and gradually promoted to the whole country, becoming an important part of the curriculum construction of first-class universities. General

Secretary Xi Jinping also emphasized the use of classroom teaching as the main channel, emphasizing that various courses and ideological and political theory courses go in the same direction to form a synergistic effect.

This has pointed out the direction of teaching reform for us from a strategic height, requiring us to tap the ideological and political education resources contained in various courses to achieve full, full, and all-round education. Soil mechanics and basic engineering is an important professional basic course for civil engineering majors. Its knowledge system mainly includes two parts: soil mechanics and basic engineering. In the teaching process, teachers often emphasize theoretical calculation ability and experimental ability in the part of soil mechanics, while in the part of basic engineering, they emphasize the requirements of standardized design, and the teaching style tends to be flat and standardized interpretation and application. The overall teaching design is biased towards cultivating talents, and seldom considers educating people and cultivating morality. Although the students finally mastered professional knowledge and skills, they lacked the corresponding ideological feelings and professional quality. After years of course teaching reform, Yancheng Institute of Technology's Soil Mechanics and Basic Engineering has achieved good construction results. It has now become a national excellent online open construction course with high social influence. The teaching reform in the early stage mainly revolved around teaching content, teaching methods, teaching methods, etc., and there was little construction at the ideological and political level.

## II. THE PROPOSED METHODOLOGY

**According to the development trend and requirements of ideological and political courses** in professional courses, the main problem that needs to be solved in the current teaching reform of this course is how to explore the ideological and political education elements contained in the course and the ideological and political education functions it carries. In recent years, the state has been advocating the development of the ideological and political education in colleges and universities pays full attention to the organic integration of the elements of ideological and political education in the professional teaching process. It can be seen that curriculum ideology and politics are of great significance in education. From the perspective of mutual relationship, curriculum ideology and politics is the dialectical unity of science and philosophy. In the actual teaching process, there is a natural relationship between professional courses and ideological and political courses, just like the world outlook and methodology in philosophy, both of which are based on natural science and social science. The material view, motion view and law view in the mature Marxist thought all benefit from natural science and social science. On the other hand, with the help of high-tech, the current professional teaching of science and engineering has a mature

world outlook and methodology, so it can better integrate some philosophical theories, thereby creating more favorable conditions for the integration of ideological and political education. Contemporary college students generally focus on personal Light team, multi-personality and less cooperation, self-centered, lack of team awareness, and unable to integrate into the unit and society soon after work.

How to enable students to provide positive energy for the collective and their peers while developing individually, and let the positive energy of the collective feed back to individual development is a major theme of ideological and political education research. The awareness of teamwork is particularly important in the practice of professional courses, which requires professional teachers to strengthen the ideological and political education of courses in all aspects and cultivate students' awareness of teamwork. First of all, full-time teachers should realize that explicit ideological and political curriculum education and implicit curriculum ideological and political education are not contradictory, but a process of mutual promotion and improvement. Ideological and political course education is a necessary educational link for every college student in the lower grades. This process is aimed at students of all majors and can lay a solid foundation for the shaping of college students' outlook on life. With the continuous accumulation of students' professional knowledge, the further sublimation of ideological and political education will inevitably require professional courses as a carrier. While imparting professional knowledge, teachers subtly instill ideological and political concepts, realize the unification of explicit education and implicit education, and achieve the purpose of teaching and educating people at a higher level. Secondly, full-time teachers should take the ideological and political courses of professional courses as an opportunity to enhance their humanistic quality in multiple ways, so as to lay a solid foundation for improving the level of ideological and political education.

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**Therefore, educators must attach great importance to the introduction class in the professional teaching process and the academic lectures in the second class, seize the opportunity to exchange ideological and political information with students, and cultivate students' political literacy and information literacy**

through teachers' personal charm and moral concepts, establish a learning community for teachers and students, reform and innovate teaching methods, apply new media, information technology and other high-tech technologies, fully improve teaching efficiency, and integrate invisible ideological and political thinking into the teaching process of tangible professional courses. There are flaws in the cognition of the concept of money and values. They believe that the satisfaction and happiness of life depend to a large extent on money and material things. In order to satisfy vanity, blind comparisons are made. Facing the problem of distorted value orientation of college students, it is not enough to rely on ideological and political courses alone. It is necessary to carry out infiltration education from both ideological and political courses and curriculum ideological and political aspects. Ideological and political elements are the core content of the ideological and political implementation of professional courses, and exploring the ideological and political elements is the first key and difficult task to be completed in the development of ideological and political education in professional courses. For soil mechanics and basic engineering, this course belongs to the category of civil engineering, and its teaching design is mainly based on professional scientific knowledge. Teachers often have no way to start when refining ideological and political elements. In fact, combined with the characteristics of the course and related industry characteristics, the exploration of ideological and political elements in this course can be considered from the following aspects. Taking the engineering classification of soil in soil mechanics as an example, my country has a vast territory, and the soil quality varies greatly in different regions. Therefore, the state has promulgated corresponding industry standards to standardize the classification of soil. The commonly used norms for soil classification are "Soil Engineering Classification Standard" and "Building Foundation Design Code". These two classification standards actually refer to the soil classification standards of different countries, and the classification methods are different, but in my country The engineering community is still used concurrently. Many students have raised their own questions about the choice of classification methods. On the one hand, teachers can use the two classification methods with different emphasis.

The so-called curriculum ideology and politics is not to bluntly incorporate ideological and political elements into the subject teaching of professional courses, but to fully integrate them into the process of professional teaching, so that curriculum ideology and politics become part of the teaching of professional courses. Educators should correctly recognize the basic differences between professional courses and ideological and political courses. If the concepts of the two are confused with each other, it will easily lead to students' rebellious psychology. From the analysis of the current situation of ideological and political teaching, ideological and political courses are more like a kind of cognition, recognition, or internalization, the extension and improvement of professional knowledge, the basis for the integration of science and philosophy, and it also highlights the excellent teachers of the people. important performance of quality. The employment rate of students in the Department of Transportation is lower than that of students in other majors in the School of Engineering. The main reason is that there are problems with students' career outlook.

According to the survey, more than half of the transportation students choose civil servants and public institutions as their preferred jobs, and even some students are still unemployed three or four years after graduation and have been taking the

civil servant exam. Course teaching is the main channel for cultivating college students' career outlook. To solidly promote the education of college students' career outlook, the content of classroom teaching must be optimized. Professional teachers should infiltrate a positive career outlook in the teaching of professional courses, so that students can deeply realize that in any occupation and any position, they can exert their abilities and make contributions to the society. It is necessary to sort out the teaching content of the course according to the teaching objectives, and find The entry point of ideological and political education elements in this course is to construct the ideological and political education module. In addition, through the establishment of the ideological and political modules of the course, the ideological and political elements such as humanistic quality, core values and engineering ethics contained in the course should be refined, and the ideological and political elements and connotations should be organically integrated into the original classroom teaching, and the corresponding knowledge points should be integrated. Combine. Teachers' own humanistic quality also has a greater impact on the effect of students' ideological and political education, and teachers themselves are the best ideological and political material.

**Teachers' rigorous work style, positive learning attitude, academic integrity,** publicity of academic ethics and other good habits will leave a deep impression on students, and it is also a way to transmit positive energy to students. Teachers must have high self-cultivation Only by understanding the quality of professional courses can we give full play to our exemplary and leading role in the teaching process of professional courses and guide students to cultivate higher quality. Based on this, teachers can infect students with their own personality charm and ideological behavior, let students comprehend new culture and new knowledge, set a good learning example, and lay a solid foundation for students to learn ideological and political knowledge. Theoretical teaching and direct indoctrination are mainly based, the content is vague, styled, lacks affinity, interest and the times, busy cultivating "moral people", and divorced from the social foundation, which makes it difficult for college students to apply the theories they learn in school after entering the society. in social practice. In terms of teaching methods, whether it is theoretical elaboration or case analysis, it is mainly based on teachers' teaching, with less participation of students, and students' initiative has not been brought into play.

Teachers lack problem guidance, class lacks discussion and debate, and lack of analysis of moral confusion in current life that college students are very concerned about. In classroom teaching design, we can focus on strengthening the concepts of quality training, engineering ethics, and environmental friendliness to enhance students' fun in learning, Improve students' sense of identity and self-confidence in this major; in specific teaching cases, we should adhere to the link between theory and practice, and use case analysis of hot engineering issues to transform ideological and political concepts into concrete and vivid effective teaching carriers, so as to improve ideological and political concepts. The persuasiveness and

effectiveness of the modules. It should be noted that the constructed ideological and political education module is not a separate teaching content or teaching link, but should be naturally introduced in the process of implementing the original knowledge goal, and the ideological and political concept should be used to improve the understanding and understanding of knowledge points.

## CONCLUSION

The ideological and political curriculum of engineering majors is one of the important contents of today's "golden curriculum" construction, and it is also the mainstream direction of the current curriculum teaching reform. The traditional classroom did not integrate the requirements of socialist core values, the ideal and responsibility of realizing national rejuvenation and other ideological and political elements into the teaching of the course, and did not achieve a better unity of education and teaching. Therefore, in view of the existing problems in the ideological and political construction of professional courses, professional teachers should first focus on improving their own ideological and political awareness.

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