

Practical Exploration of Integrating Ideological and Political Education into Engineering Economics Teaching

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Abstract

Engineering economics is one of the core professional courses offered in engineering majors, which is of great significance in cultivating students' basic engineering literacy and management decision-making ability. In the context of the "Three Comprehensive Education" and curriculum ideological and political education, curriculum teaching has become an important battlefield for universities to achieve their educational goals. It is imperative to integrate ideological and political elements into the teaching of engineering economy courses. Starting from the nature of engineering economics courses, this article points out the problems in traditional teaching of engineering economics, explores the integration methods and specific practices of ideological and political elements in professional course teaching, and makes course teaching the main channel for "three comprehensive education", effectively improving the effectiveness of ideological and political education.

Keywords

Engineering Economics; Case Teaching; Curriculum Ideology and Politics.

1. Introduction

It should be recognized that students' ideological and political education is not only the responsibility of full-time teachers of ideological and political courses, but also the common responsibility of all teaching teachers. University teachers should actively practice integrating professional courses into ideological and political education, making every classroom teaching the main channel for "three comprehensive education", and highlighting the value oriented role of ideological and political education in the process of knowledge transmission.

Engineering economics is the core course of engineering majors, which includes five major knowledge modules: economics, management, engineering, law, and computer science; Through teaching, students can understand the relationship between engineering technology and economic effects, become familiar with the basic process of selecting engineering technology solutions, master the basic principles and methods of engineering economics, and possess the basic ability to conduct engineering economic analysis. Learning engineering economics well and establishing correct values can help improve the economic benefits of the country, enterprises, and individuals. If values are distorted, investment scale expands indefinitely, and risk management is not in place, it will cause incalculable losses to individuals, enterprises, and even the country. Therefore, integrating ideological and political education into the curriculum teaching process has strong theoretical and practical significance.

2. Problems in Traditional Teaching of Engineering Economics

The Engineering Economics course is a core course for engineering majors, with strong comprehensiveness, practicality, and applicability. It belongs to the interdisciplinary field of engineering and economics, and requires students to not only master the basic theories of economics, but also have a certain understanding of engineering technology. Therefore, the course needs to cultivate students' ability to analyze and evaluate the economic effects of engineering projects. From the perspective of ideological and political education, the course of Engineering Economics cultivates students' cognitive and discriminative abilities towards social and economic phenomena, integrating various social rules, professional rules, and value literacy, and strengthening students' sense of identification with socialist values. However, in traditional teaching, teachers often focus mainly on lectures, supplemented by relevant knowledge point examples, and pay too much attention to imparting knowledge points. Students' learning motivation and understanding are insufficient, and some exercises and assignments lack specificity, which is disconnected from the actual social and economic phenomena. Therefore, combining the characteristics of engineering economics courses and the ideological and political elements contained, integrating case teaching, and exploring the practical path of engineering economics case teaching are of great significance for achieving professional training goals and course construction goals.

2.1. Course Arrangement

The main teaching target of the Engineering Economics course is third year students majoring in engineering. The teaching time is concentrated in the autumn semester, with 36 class hours taught and 2 class hours per week, totaling 18 weeks. Engineering economics is a professional examination course for relevant professional qualification certificates and graduate entrance exams, and talent training programs have strong value orientation and guiding significance. Due to insufficient class hours, limited classroom teaching capacity, insufficient student learning awareness, single assessment methods for teaching effectiveness, insufficient internalization of students' knowledge, and high requirements for mathematics in the curriculum, some students have a fear of difficulty in learning. During the learning process, there are objective problems such as insufficient learning motivation, slackening of thinking, and even anxiety, which need to be highly valued and guided.

2.2. Course Teaching

Engineering economics is a highly comprehensive course that involves a large number of formula derivation and calculations. It requires students to possess basic knowledge such as advanced mathematics and financial accounting. Currently, most schools mainly focus on teaching applied technology. The traditional teaching methods and means of this course are relatively simple. The teaching process mainly involves teaching basic concepts, theories, and formula derivation, and then improving students' ability to understand and master knowledge points through example exercises. However, due to the strong theoretical nature of most of the cases in the textbooks, which cannot be integrated with actual work and life, there are problems such as insufficient student interest, understanding, and theoretical support during the teaching process. Teachers need to inject ideological and political elements into the curriculum during the teaching process, help students establish correct worldviews, outlooks on life, and values, and achieve the goal of cultivating socialist builders and successors in ideological and political education.

3. Methods and Practice of Ideological and Political Integration in Engineering Economics Courses

Curriculum ideological and political education is an innovation in the ideological and political education work of universities, and also an important link in implementing the fundamental task of cultivating morality and achieving "three comprehensive education". Deeply explore the ideological and political elements and resources contained in the course of engineering economics, combine knowledge transmission with patriotic thinking, to improve students' learning enthusiasm, and cultivate correct worldviews, life views, and values.

3.1. Method of Integrating Ideological and Political Education into the Curriculum

The construction and implementation of ideological and political education in courses require teachers to explore ideological and political elements based on course content and consciously design them based on knowledge points. Due to the fact that engineering economics is a discipline aimed at improving the effectiveness of engineering economic activities, the curriculum contains a large amount of ideological and political elements. Including elements of professional ethics, craftsmanship spirit, priceless youth, mass entrepreneurship, innovation, and socialist core values. Through a systematic review of the course content, several learning scenarios were selected from the course, and each learning scenario was combined with ideological and political elements to form a specific route for integrating learning scenarios and ideological and political elements.

3.2. Case Teaching Reflects Ideological and Political Elements.

The course of engineering economics contains rich ideological and political elements, specifically manifested as socialist core values, traditional Chinese culture, elements of engineer professional ethics, and elements of green development education. Therefore, in teaching practice, case teaching can be strengthened. The selection of cases should mainly focus on domestic cases, fully explore the ideological and political elements of cases, and subtly achieve the goal of guiding students to establish lofty ideals and patriotic sentiments in teaching. It is our responsibility to achieve the Chinese Dream and the great rejuvenation of the Chinese nation, and to achieve comprehensive development in morality, intelligence, physical fitness, aesthetics, and labor.

3.3. Innovative Teaching Methods

The teaching process emphasizes both internal and external approaches, actively motivating students to participate in thinking, and subtly cultivating students' socialist core values. In the process of introducing course content, design questions with ideological and political elements, mainly in a divergent style, and leave space for students to think independently after questioning and answering. For example, in the "Nominal Interest Rate and Actual Interest Rate" section, students can be consulted as friends about their daily living standards and shopping habits, whether they have taken out loans to purchase a house, and whether they have used small loans on internet platforms. Introduce the necessary cases for the course, so that students can transition to the course in a natural way and become more interested in the cases. Expand learning channels based on course content, encourage students to use their after-school time, expand their knowledge through the internet, and share their encountered problems in the classroom. Integrate learning knowledge with social practice. Extend the course teaching beyond the classroom, guide students to discover and observe problems on their own, encourage students to flexibly use knowledge to analyze or solve economic problems within their capabilities, cultivate students' professional quality, professional ability, national

sentiment, and possess rigorous engineering literacy, complex economic concepts, and comprehensive ability to make major engineering investment decisions.

4. Specific Design of Integrating Ideological and Political Education into Teaching

By combining the teaching objectives of the Engineering Economics course with the ideological and political education objectives, and summarizing the teaching content and combining the knowledge points of each chapter, corresponding ideological and political elements are sorted out, and based on this, the ideological and political education of the course is introduced.

The introduction section of Chapter 1 can use "craftsmen from a big country" as an ideological and political element, introduce the video "important tools from a big country", and discuss with classmates what professional qualities engineering project workers should possess, so that students can clearly understand the corresponding professional ethics and ethics required for any job. Chapter 2 Cash Flow and Its Composition can teach students why to control cash flow and how to effectively control it, eliminating investment waste and risks; Chapter 3 Time Value and Equivalence Calculation of Funds, with the appreciation of funds as an ideological and political element, introduces cases of loan buying and illegal campus loans to make students realize the importance of rational use of funds. Chapter 4: Economic Plan Selection, introducing high-speed rail investment projects as a case study. These engineering projects have improved people's lives and stimulated local economic vitality, emphasizing the investment effectiveness and economic decision-making of the projects. Chapter 5 Project Feasibility Study can discuss the importance of life choices with classmates, propose to establish life ideals, cultivate a positive attitude towards life, and clarify one's own life values. Chapter 6 Uncertainty and Risk Analysis. Taking the shaping of a life philosophy as the starting point, improve the ability to distinguish right from wrong, achieve unity of knowledge and action, maintain passion and persistence for ideals and beliefs, and clarify that sensitive factors should be paid attention to when identifying risks; Chapter 7 Economic Evaluation of Engineering Projects can take the Western Development as an ideological and political element, and engineering projects focus on national economic evaluation.

5. Conclusion

As the core course of engineering majors in universities, the course of engineering economics is of great significance in cultivating students' basic economic literacy and decision-making ability. The teaching reform of integrating ideological and political elements into the teaching process of engineering economics is imperative. In the context of the teaching of "three comprehensive education" and curriculum ideological and political education, we will construct a grand pattern of "ideological and political courses+curriculum ideological and political education", explore classroom teaching reform, deeply explore ideological and political elements, highlight the integration of explicit and implicit education, and achieve a creative transformation from the main channel of ideological and political education to the three-dimensional education of curriculum ideological and political education, promoting the "three comprehensive education". This article takes the engineering economy course as the object, mainly targeting the requirements of ideological and political education in the course. It closely combines with the actual situation of the engineering economy course, and proposes specific measures from the aspects of course teaching and ideological and political education goals, methods and paths of integrating ideological and political education into the course. It provides a basis for the reform and practice of ideological and political education in the course, in order to adapt to the reform and development of higher education in the new era.

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