

Original Research Article

Exploring the Methods of Ideological and Political Education in the Course Group of Mechatronics Integration Technology

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Abstract: This article takes the electromechanical integration technology professional group as a case study to explore the path of implementing course ideological and political content in electromechanical professional groups. The focus is on analyzing the exploration and practice of professional groups in terms of concept integration, curriculum system construction, teacher team construction, and teaching methods in the process of course ideological and political construction and implementation.

Keywords: mechatronics integration; Ideological and political education; teaching method

1. Preface

In recent years, China has continuously increased its efforts in promoting ideological and political education in the curriculum, and many higher education institutions have placed the concept of moral education at the core of talent cultivation plans. Vocational colleges fully leverage the unique charm and significant advantages of their vocational education, committed to cultivating high-quality technical and skilled talents with firm political beliefs, deep patriotism, lofty moral ideals, rich cultural heritage, strong innovation consciousness, solid professional ethics and professional ethics. Therefore, vocational colleges are actively innovating classroom teaching and steadily promoting the in-depth development of ideological and political education in the curriculum.

2. The determination of educational philosophy is crucial

In the current social context, we need to clarify that the goal of the ideological and political courses for the electromechanical integration professional group is to cultivate talents with socialist core values, good professional ethics, and technical skills. This is our basic requirement for vocational education, and also our basic positioning for the ideological and political courses of the electromechanical integration professional group. Therefore, in terms of educational philosophy, we must adhere to the combination of morality and technology, and the combination of engineering and learning. Combining morality and technology means that students should not only master professional skills, but also cultivate their moral literacy, so that they understand that technology is to serve society and the people, not to pursue personal interests. The integration of engineering and learning means that students should not only learn theoretical knowledge but also engage in practical operations, so that they can learn to apply knowledge and improve their problem-solving abilities through practice. At the same time, we also need to organically integrate ideological and political education with professional education. This means that we cannot view ideological and political education as an independent curriculum, but should integrate it into professional courses and combine it with the learning of professional knowledge and skills. In the teaching process, teachers should be good at exploring the ideological and political elements in professional courses,

guiding students to think about professional ethics and other issues through case analysis, discussion and communication, so that students can naturally receive ideological and political education while learning professional knowledge.

3. The construction of the curriculum system is the core

In order to ensure the effective construction and implementation of ideological and political courses in the electromechanical integration professional group, we need to design a scientific, reasonable, and systematic curriculum system. This curriculum system should fully consider the characteristics of the electromechanical integration major and the future career development needs of students. Firstly, the ideological and political theory course is a public course that all professional students must learn. It provides students with political theory education such as the basic principles of Marxism and the theoretical system of socialism with Chinese characteristics, helping them establish correct worldviews, outlooks on life, and values. Secondly, the course on professional ethics and professional competence aims to cultivate students' awareness of professional ethics and enhance their professional competence. This course can help students understand and internalize the importance of professional ethics through case analysis, role-playing, and corporate internships, and learn how to demonstrate professional, polite, and responsible behavior in the workplace. Once again, the professional ideological and political education course is designed for the characteristics of mechatronics integration. It combines ideological and political education with professional knowledge learning, explores the application of professional technology in social development, and the impact of technological progress on professional ethics, so that students can recognize technical ethics and social responsibility while learning professional skills.

When constructing this curriculum system, we need to pay attention to the following aspects:

1. Timeliness of course content: With the development of society and technological progress, ideological and political education content also needs to be constantly updated to maintain its characteristics of keeping up with the times.

2. Flexibility of the curriculum system: A certain degree of elective courses should be provided based on students' interests, strengths, and future career plans to meet the learning needs of different students.

3. Innovation of teaching methods: Adopting diversified teaching methods such as flipped classroom, online learning, group discussions, etc., to improve student participation and learning effectiveness.

4. Scientificity of evaluation system: Establish a comprehensive, objective, and fair evaluation system, which not only evaluates students' knowledge mastery, but also their moral literacy and professional ability.

Through such a scientific, reasonable, and systematic ideological and political course system, we can better achieve the goals of the electromechanical integration professional group ideological and political courses, cultivate composite talents who possess both advanced technical skills and good professional ethics and social responsibility.

4. The construction of the teaching staff is a guarantee

Teachers play a crucial role in ideological and political education, serving as disseminators of educational concepts, developers of educational content, guides of educational processes, and evaluators of educational outcomes. Therefore, the quality and ability of teachers directly determine the quality and effectiveness of ideological and political education. In order to improve the implementation effect of ideological and political

education, we need to build a team of teachers who are politically firm, professionally skilled, and morally noble.

Firstly, political firmness is the primary condition for the construction of the teaching staff. Teachers should have a firm political belief, a deep understanding and loyalty to the Party's educational policies and guidelines, as well as socialist core values. This requires us to conduct regular ideological and political education and training for teachers, strengthen their political theory learning, and ensure that they can accurately convey and promote the core values of socialism.

Secondly, excellent professional skills are the core requirement for the construction of the teaching staff. Teachers should have solid professional knowledge and skills, and be able to effectively integrate ideological and political education content into professional teaching. This requires us to encourage teachers to participate in professional research and practice, enhance their professional teaching abilities, enable them to combine the latest scientific research achievements and technological progress with ideological and political education, and improve the attractiveness and effectiveness of teaching.

Once again, moral nobility is the cornerstone of the construction of the teaching staff. Teachers should have good professional ethics, lead by example, and become role models for students to learn from. This requires us to strengthen the professional ethics education of teachers, guide them to establish correct educational concepts and professional ethics, and demonstrate the moral character of teachers through practical actions.

To build such a teaching team, we can take the following measures:

1. Regularly organize teachers to participate in ideological and political education training to improve their political theory level and educational ability.
2. Encourage teachers to participate in academic exchanges and research activities, and improve their professional quality and teaching level.
3. Strengthen the professional ethics education of teachers, establish a sound professional ethics evaluation system, and motivate teachers to establish noble professional ethics.
4. Establish incentive mechanisms to recognize outstanding teachers in ideological and political education, and enhance their sense of professional achievement and honor.
5. Strengthen the management and supervision of the teaching staff, ensure that teachers can strictly follow educational norms in the teaching process, and achieve teaching and education.

Through these measures, we can gradually establish a politically firm, professionally skilled, and morally noble teaching team, providing strong talent support for improving the effectiveness of ideological and political education in the electromechanical integration professional group.

5. Innovation in teaching methods is the means

In today's information age, modern educational technology provides us with abundant tools and resources, making ideological and political education more vivid, intuitive, and effective. In order to enhance the effectiveness of ideological and political education, we should actively embrace modern educational technology and explore innovative teaching methods. For example, we can use online platforms to carry out a combination of online and offline ideological and political education. Through online teaching, we can break the limitations of time and space, enabling students to learn at any time and place, enhancing the flexibility and convenience of teaching. At the same time, online teaching can also make teaching content more vivid and interesting through multimedia, videos, animations, and other forms, enhancing students' interest in learning. Offline teaching can

stimulate students' thinking and participation through discussions, debates, speeches, and other methods, enhancing the interactivity of teaching. Meanwhile, using virtual simulation technology, we can create realistic scenario simulation environments, allowing students to experience the true essence of ideological and political education in simulated practical scenarios, and improve their moral judgment and decision-making abilities. In addition, practical teaching is an indispensable part of ideological and political education. Through on-site teaching, we can carry out on-site teaching style ideological and political education. Students can combine theoretical knowledge with practical social phenomena to deepen their understanding and recognition of the content of ideological and political education. Practical teaching can include social surveys, volunteer services, internships, and practical training. Through these practical activities, students can combine theoretical knowledge with practical operations, personally experience the importance of ideological and political education, and cultivate their sense of social responsibility and professional ethics. Not only can it enhance technical skills in practice, but it can also experience the practical significance of professional ethics in practical work scenarios. In addition, we can also use modern educational technologies such as big data and artificial intelligence to analyze and evaluate the learning behavior and effectiveness of students, in order to better guide teaching and improve the effectiveness of ideological and political education.

6. Conclusion

The implementation of ideological and political courses is an important component of the education of mechanical and electrical majors in vocational colleges in the new era, aimed at cultivating talents with both moral and technical skills, as well as good professional ethics and technical skills. In order to construct and implement high-quality ideological and political courses for mechatronics integration majors, we must carry out in-depth top-level design and systematic planning from multiple dimensions such as updating educational concepts, improving curriculum systems, building teacher teams, and innovating teaching methods. Only in this way can we ensure the smooth realization of the goals of ideological and political education, and cultivate new era talents who can promote technological progress and bear the core socialist values.

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