

Study on Ideological and Political Education of Operation and Maintenance of Intelligent Manufacturing Unit

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Keywords: Ideological and political education, Industrial robot, Normative consciousness

Abstract: The fundamental task of education is to “establish morality and cultivate people”. This paper studies the exploration, development and implementation of Ideological and political elements from the requirements, design, case implementation process and evaluation of curriculum. Explore how to integrate ideological and political education into the operation and maintenance course of intelligent manufacturing unit and implement it effectively. Finally, the students' technical skills, professional quality and ideological and political quality can be improved simultaneously.

1. Introduction

The integration of Ideological and political elements into professional course teaching is not a simple insertion, but needs to be properly integrated into the overall teaching process, such as course teaching objectives, teaching contents, teaching process, teaching methods, course assessment and so on. Form a reasonable integration mechanism, which is accepted, absorbed and transformed into practice by students. The course of operation and maintenance course of intelligent manufacturing unit aims to train talents in the field of high-end intelligent manufacturing, mainly to train daily operation and maintenance personnel for high-end manufacturing equipment and support the development of manufacturing industry at all levels. Therefore, it is necessary to deeply explore and refine the ideological value and spiritual connotation contained in the professional knowledge system, and strengthen students' belief of dedication, love the party and patriotic. At the same time, in the teaching process, combined with the cases in the operation of intelligent manufacturing equipment, cultivate students' craftsman spirit of preciseness, diligence and excellence [1-2].

2. Ideological and Political Design Ideas

According to the requirements of the Ministry of education on printing and distributing ‘The guiding outline for ideological and political construction of courses in Colleges and universities’(JG [2020] No. 3) and ‘The implementation plan for promoting ideological and political work of courses in Shaanxi Polytechnic Institute’, in the teaching process, we should combine the objectives of moral education and intellectual education, and break the simple addition mode of “Ideological and political” + “professional courses”. Achieve the effective integration of “knowledge transfer” and “value guidance”. This course adopts the teaching mode of integrating theory with practice in the teaching process, selects the cases in the actual operation and maintenance process, guides students to pay attention to the professional spirit of preciseness, teamwork and hard work in the process of theory and practice from the perspective of values. After the end of the final course, realize the ideological and political system of the course with rich types and gradual progress, and achieve the goal of Building Morality and cultivating people based on the professional field of the course [3-4].

3. Teaching Case

The display content here is the knowledge points of “robot function and safety inspection” in unit 3.

3.1 Teaching Objectives

(1) Be able to conduct safety inspection on the environmental factors around the robot according to the safety production specifications.

(2) Be able to complete the self inspection report of intelligent manufacturing unit equipment.

3.2 Objectives of Ideological and Political Education

In the process of learning the theory of robot function and safety inspection, guide students to integrate theory with practice, and train students to obtain good professional ethics and professional quality. At the same time, form good psychological quality and humanistic quality, and have a sense of standardization, and develop safe working habits through the introduction of the crew members' strong ability to deal with emergencies in the film captain China.

3.3 The Design of Ideological and Political

Content of courses	Entry point of Ideological and political elements	Educational goal
1. Safety inspection of the surrounding environment of the robot 2. Write the robot self-inspection report	Ideological and political elements: China's captain movie - fulfilling the spirit of dedication Through the introduction of the film "captain of China", guide students to think, stick to their own work in ordinary posts, and make simple things to the extreme. Any ordinary person in ordinary posts may become a hero. At the same time, tell the students that the heroic captain and the heroic crew are not accidental. It is the training of the captain and crew for thousands of times in every detail and every action, as well as the strong psychological quality.	1. Obtain good professional ethics and professional quality, and form good psychological quality and humanistic quality 2. Develop good safe working habits and have a sense of standardization

3.4 Implementation Process

(1) Introduce the knowledge of this lesson - Case Analysis

The movie "Captain of China", based on the real incident of Sichuan Airlines flight 3U8633's successful handling of special circumstances on May 14, 2018. When the team was carrying out the flight task, it encountered an extremely rare dangerous situation of bursting and falling off of the cockpit windshield glass and cabin pressure relief at an altitude of 10000 meters. At the critical moment of life and death, they responded decisively and handled correctly in the face of danger, ensuring the life safety of all personnel on board and creating a miracle in the history of civil aviation in the world.

Question: In the Chinese captain's film, what are the factors that make this flight turn the corner?

Teacher's summary: The appearance of the heroic captain and crew in the people's vision is not accidental. It is the training of the captain and crew for thousands of times in every detail and every action, as well as the strong psychological quality. The simulation of all safety accidents and careful inspection of equipment before take-off, repeated actions what seemingly simple again and again, and the calm of the crew in the event of an accident saved the lives of the whole aircraft.

(2) Robot function and safety inspection

By introducing the case of captain China, the importance and necessity of daily function confirmation, safety troubleshooting and standardized operation of manufacturing equipment are further emphasized. Cultivate students' safety awareness, develop good safe working habits, firmly engrave the simple actions of each step in their hearts, and make them an inseparable part of their daily work. At the same time, guide students to think, stick to their own work in ordinary posts, and do the best and best in simple things. Then, ordinary you may enter the vision of more people and make different contributions in your own posts.

3.5 Evaluation and Effectiveness

Introduce ideological and political content and relevant knowledge points through films that students are familiar with and interested in, on the one hand, arouse students' interest and participate in the classroom. On the other hand, this ideological and political content selects the deeds around them to attract the attention of the students, so that the students can pay more attention to the

knowledge points. In this way, in their future work, students can also think of this case and the importance of developing good safe working habits and having a sense of standardization. Inspire students to be rigorous and conscientious in their work, and look forward to making different contributions in ordinary posts.

4. Characteristics and Innovation

(1) Carry out curriculum development and design according to the requirements of the working process

Highlight the application and practicality of teaching according to the tasks and requirements of the actual work of the factory. In the teaching process, we should pay attention to the combination of theory and practice, and the combination of curriculum ideological and political skills and knowledge. In the process of explaining theoretical knowledge, we should pay attention to science and rigor, and should closely link with reality, close to society, close to occupation and close to students. In the process of practical teaching, strengthen case teaching and practical links. At the same time, in the process of explaining the skills and knowledge, they are properly integrated into the ideological and political education. The two complement each other, so that the students can not only understand the ideological and political education, but also better master the skills and knowledge.

(2) Implement the “experiential teaching” mode and pay attention to the effectiveness of teaching

Follow the teaching principle of “teachers as guides, mainly by students, and promote the common development of teachers and students”, and pay attention to the effectiveness of teaching. Flexible use of case introduction method, practical teaching method, scenario simulation teaching method, comparative analysis method, classroom discussion and summary method and other teaching methods can effectively mobilize students' learning initiative and enthusiasm and cultivate students' abilities in all aspects. At the same time of knowledge teaching, it provides students with space to show their learning harvest to a great extent.

Acknowledgement

Jie Ma is supported by “Exploration and Research on ideological politics of Operation and Maintenance of Intelligent Manufacturing unit” of Shaanxi Vocational and Technical Education Society (NO: SGKCSZ2020-204) and Shaanxi polytechnic institute.

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