

Exploration of Ideological and Political Teaching Practice for the Course “Application of Financial Robot Software”

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Abstract: This paper focuses on the effective integration of ideological and political education in the course of “Financial Robot Software Application” against the backdrop of the digital transformation of accounting and finance majors, aiming to cultivate high-quality financial talents meeting the needs of the times. Following the ideological and political design ideas of “clarifying the ideological and political direction, scientifically setting ideological and political goals, and optimizing the supply of ideological and political content”, this paper constructs an ideological and political education content framework system closely integrated with the content of the financial robot software application course. It also suggests implementation strategies such as diversified ideological and political teaching materials, innovative interactive teaching methods for ideological and political education, and a continuous feedback, evaluation, and improvement mechanism, so as to truly achieve the organic integration of value shaping, knowledge imparting, and ability cultivation, effectively enhance the effectiveness of ideological and political teaching, and cultivate compound financial talents with a high sense of social responsibility, good professional ethics, and solid professional skills.

Keywords: Financial robot; Ideological and political education in courses; Teaching design

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1. The raising of the problem

In recent years, Robotic Process Automation (RPA) technology has emerged as an important force in the digital transformation of enterprises and is known as digital labor. A financial robot refers to the specific application of RPA technology in the financial field. It can simulate the interaction between humans and computers to automatically complete large-volume, repetitive, and mechanical financial business processes, thereby improving the efficiency and accuracy of financial work ^[1]. RPA financial robots have further revolutionized the technical tools in finance, quietly changing the working mode of finance and gradually enabling finance to transform towards automation, digitization, and intelligence.

Based on the needs of the digital transformation of the industry, the course of “Financial Robot Software Application” is a breakthrough for the innovation and reform of accounting and finance major curriculum construction in the context of “artificial intelligence + accounting”. It aims to cultivate compound talents who not only understand finance but also master the development technology of RPA financial robots, so as to improve the efficiency of financial information processing and problem-solving ability required for future positions. Through the study of this course, students can understand the application principle of robotic process automation, be aware of the working scenarios and processes

of innovative applications of RPA in the financial field, and master and use RPA tools to carry out work related to the automation of financial business processes. Specifically, through the integrated teaching of enterprise financial business and RPA technology, students' vision and awareness of financial digital transformation can be cultivated to meet the ability requirements for intelligent financial scenario operations. By conducting pain-point analysis based on enterprise financial business processes and carrying out the automation transformation of business processes, students can possess comprehensive technical literacy and the ability to solve practical problems.

To comprehensively improve the quality of talent cultivation, ideological and political education in courses is also an important part of the construction of the "Financial Robot Software Application" course^[2]. Currently, in the process of ideological and political construction of financial robot-related courses, there are still problems such as the course content emphasizing technology while neglecting the exploration and integration of ideological and political elements, and the ideological and political content being combined rigidly with professional knowledge, and insufficient innovation in teaching methods, resulting in the weak attractiveness and effectiveness of ideological and political education. Therefore, how to more effectively explore and integrate ideological and political elements, design innovative teaching methods, and subtly integrate ideological and political education into the entire process of course learning has become an important task in the current teaching reform of the "Financial Robot Software Application" course.

2. Overall design ideas of ideological and political education in the course

2.1. Clarify the ideological and political direction and highlight the key points of construction

The ideological and political education direction and construction focus of the "Financial Robot Software Application" course aim to cultivate compound financial talents with a high sense of social responsibility, good professional ethics, and solid professional skills. Through the integration of ideological and political elements, the course emphasizes adhering to the professional ethics of integrity-first, law-abiding and compliance in the context of the intelligent era. At the same time, it focuses on cultivating students' innovative spirit, teamwork ability, national awareness, risk awareness, concept of lifelong learning, and awareness of scientific and technological ethics. The focus is on aspects such as excellence, effective communication, global vision, and compliant operation, aiming to shape financial talents who not only possess professional skills but also have good moral cultivation, so as to adapt to the rapidly developing field of financial robot technology and contribute to the sustainable economic development of society and the country.

2.2. Set ideological and political goals and integrate into teaching design

According to the spirit of the "Guidelines for the Construction of Ideological and Political Education in Courses in Institutions of Higher Learning" issued by the Ministry of Education, in the teaching of the "Financial Robot Software Application" course, closely centering around the fundamental task of fostering virtue through education, the three aspects of value shaping, knowledge imparting, and ability cultivation are deeply integrated. Ideological and political construction goals are scientifically designed, and teaching design is carried out accordingly. In terms of value shaping, combined with diverse financial business scenarios and job simulations, we focus on guiding students to establish correct professional values, enhance their sense of social responsibility and mission, and lay a solid foundation for becoming responsible financial professionals. In terms of knowledge imparting, we are committed to improving students' professional qualities. Through systematic teaching, we ensure that students master solid basic knowledge and core skills of financial robot software application, improve their ability to solve practical problems, and enhance their professional identity and confidence. In terms of ability cultivation, we focus on strengthening students' practical innovation ability, cultivating their awareness of financial automation thinking, and encouraging students to use RPA technology to solve process automation problems in various work scenarios, so as to exercise and improve their innovation ability and practical operation ability in practice.

2.3. Optimize the supply of ideological and political education and enrich the connotation of the course

In order to optimize the supply of ideological and political education and enrich the connotation of the “Financial Robot Software Application” course, the following strategies are adopted to explore ideological and political resources: First, closely related to major national development strategies such as strengthening the country through science and technology and innovation-driven development, the importance of innovative practice is emphasized, aiming to improve students’ innovation and creativity ability and contribute to national scientific and technological progress and financial digital transformation. Second, for various financial work scenarios, a “value-enhancement” section is carefully set up. By introducing typical ideological and political education cases in the financial field, positive, law-abiding, professional ethics, excellence-seeking, and patriotic education and other ideological and political elements are skillfully integrated, striving to subtly improve students’ comprehensive qualities while imparting knowledge and achieving the “subtle influence” of ideological and political education.

3. Overall content framework of ideological and political education in the course

As shown in **Table 1**, the ideological and political content framework of this course can be improved from three aspects.

First, combined with the professional characteristics of accounting and finance majors, we integrate ideological and political elements such as professional ethics, integrity and law-abiding, and social responsibility into teaching. For example, when explaining the automatic invoice issuance robot, the importance of legal invoicing and honest reimbursement is emphasized, allowing students to understand its impact on the market economic order. Through cases of automated robots, such as invoice management, fund management, and tax filing management, students practice professional qualities and ethical norms and understand the importance of fund management, tax compliance, and social responsibility. The case of the automated financial report analysis robot enables students to recognize the necessity of financial analysis, risk awareness, and early-warning mechanisms. These contents aim to enable students to establish correct values and professional attitudes while mastering professional knowledge.

Second, pay attention to current hot topics and industry development trends, adjust and optimize the course content in a timely manner, ensure that the course content is closely combined with industry needs and social development, guide students to pay attention to the overall situation of national development, keep up with the pace of the times, and enhance their sense of social responsibility and mission^[3]. On the one hand, update the RPA technology course and integrate the latest hot topics such as financial digital transformation and intelligent finance. On the other hand, encourage students to design financial robot works around the industry forefront to improve their innovation and teamwork ability. At the same time, introduce the application of big data and artificial intelligence in the accounting field, allowing students to understand the profound impact of technology on the industry and stimulate their enthusiasm for learning new technologies. Through in-depth study of national science and technology strategies, students’ concept of serving the country through science and technology is cultivated, laying a foundation for becoming new-era financial talents with scientific literacy and a sense of responsibility.

Third, excavate typical industry cases, combine ideological and political education with professional knowledge teaching, and cultivate students’ correct values and professional attitudes^[4]. For example, when teaching financial report analysis and automatic tax filing robots, discuss cases of corporate financial fraud and tax evasion, emphasize the necessity of integrity and law-abiding and its impact on enterprises and society, guide students to think about professional ethics, and enhance their sense of social responsibility. At the same time, analyze the role of financial personnel in corporate decision-making, improve students’ understanding of the importance of financial work, and enhance their confidence in the industry and profession.

Table 1. Curriculum ideological and political content framework

Course Module	Course Content	Ideological and Political Content in the Course	Ideological and Political Elements	Goals of Ideological and Political Construction
Initial Learning of RPA	1. Concept and development history of RPA; 2. Application scenarios of RPA in the financial field; 3. Introduction to RPA tools and platforms	Guide students to recognize the power of technology and cultivate the sentiment of serving the country through science and technology	Strengthening the country through science and technology and innovation-driven development	Value Shaping: Guide students to establish correct values, recognize the power of technology, and set the ideal of serving the country through science and technology
Basic Grammar of RPA	1. Variables, functions, and process control; 2. Data processing and operation; 3. Debugging and error handling	Cultivate students' rigorous logical thinking and serious working attitude	Logical thinking and craftsmanship spirit	Knowledge Imparting: Master the application of RPA technology
Automated Invoice Management Robot	1. Invoice recognition and extraction; 2. Automatic invoice verification; 3. Automatic invoice issuance	1. Legal invoicing and honest reimbursement; 2. Guide students to understand the importance of true and legal invoicing and honest tax payment	1. Professional qualities and ethical norms; 2. Awareness of the legal system and compliant operation; 3. Social responsibility and sense of mission	Ability Cultivation: Master the application skills of RPA technology in the financial field and improve professional qualities
Automated Fund Management Robot	1. Download of fund flow; 2. Bank-enterprise reconciliation; 3. Risk prompt and early-warning	1. Awareness of fund management and risk control; 2. Guide students to understand the importance of reconciliation		
Automated Tax Filing Management Robot	1. Identification of tax types and tax rates; 2. Automated tax filing	1. Awareness of tax compliance; 2. Social responsibility and honest tax payment		
Automated Financial Report Analysis Robot	1. Extraction of financial statement data; 2. Financial report analysis; 3. Financial risk assessment	1. Financial analysis and decision-making ability; 2. Risk awareness and early-warning mechanism		
Design and Development of Financial Robot Works	1. Requirement analysis and solution design; 2. Design and implementation of robot processes; 3. Work testing and optimization	Design robot works in combination with industry hot topics and cutting-edge trends	Innovative spirit and teamwork	Ability Cultivation: Strengthen students' practical innovation ability, logical thinking ability, and teamwork ability

4. Overall implementation strategies of ideological and political education in the course

4.1. Diverse ideological and political teaching materials

In the ideological and political teaching of the “Financial Robot Software Application” course, we adopt diverse ideological and political teaching materials, aiming to cultivate students’ professional skills and moral qualities simultaneously. Specifically, a case library of financial robots applied in various industries is established to broaden students’ horizons. We keep up with technological developments and industry trends and update the course content to enable students to understand the profound impact of new technologies on the social economy. Through in-depth analysis of legal and ethical issues that may be encountered in the practical application of financial robot technology in cases, students’ awareness of the legal system and ethics is enhanced. During the development of robots in specific business scenarios, negative warning cases such as false invoicing and financial fraud are used to guide students to abide by professional ethics and establish correct career ideals and values.

4.2. Innovative ideological and political teaching methods

In the “Financial Robot Software Application” course, we have adopted a series of innovative teaching methods to carry out interactive ideological and political education, ensuring that students can deeply understand and practice professional ethics and social responsibility, thus comprehensively improving the overall educational effect. First, social practice surveys. Organize student teams to investigate financial digital and intelligent technologies and share and discuss their applications in the financial field, cultivating students’ feelings of serving the country through science and technology and their sense of mission. Second, simulated-situation teaching. Through role-playing and situational dramas, students experience professional behaviors in simulated financial scenarios and deeply understand the importance of professional ethics, corporate responsibility, and compliance. Third, ideological and political special topic discussions. Design special interactive modules, such as “Financial Robots and Professional Ethics Norms”, etc. Through group discussions of cases, students’ understanding of professional ethics is deepened, and they explore how to fulfill social responsibilities in the application of financial robots during the discussion. Fourth, cutting-edge case analysis. Select ideological and political cases close to students’ lives, invite corporate mentors to hold discussions, and guide students to analyze and discuss using ideological and political theories, cultivating critical thinking and problem-solving abilities.

4.3. Continuous feedback and evaluation mechanism

In the ideological and political construction of the “Financial Robot Software Application” course, the method and strategy of continuous feedback and evaluation play a crucial role. It is not only an important basis for measuring teaching effectiveness and adjusting teaching strategies but also a key link in promoting the all-round development of students and deepening ideological and political education. Specifically, to improve the effectiveness of ideological and political education, it is necessary to establish diversified feedback channels, including traditional classroom interactions and modern information technology means, such as online questionnaires, assignment submissions, and practical observations. These feedbacks help teachers understand the improvement of students’ ideological and political qualities and comprehensive abilities, so as to actively adjust the ideological and political teaching content, strategies, and methods to better meet students’ learning needs and ideological and political education goals. In addition, the evaluation system should be continuously improved, regularly evaluated and adjusted to adapt to the changing teaching needs and student characteristics. At the same time, teachers and students are encouraged to actively participate in the improvement of the evaluation system and jointly carry out the construction of ideological and political education in courses.

5. Conclusion

Against the backdrop of the digital transformation of accounting and finance, the integration of ideological and political education into the “Financial Robot Software Application” course aims to cultivate compound talents with a sense of

social responsibility, professional ethics, and professional skills. In teaching, it is necessary to clarify the ideological and political direction, scientifically set ideological and political goals, optimize the supply of ideological and political content, construct an ideological and political education content framework system closely integrated with the content of the financial robot software application course, and through diversified ideological and political teaching materials, innovative interactive ideological and political teaching methods, continuous feedback evaluation, and improvement mechanisms, truly achieve the organic integration of value shaping, knowledge imparting, and ability cultivation, and effectively enhance the effectiveness of ideological and political teaching.

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Disclosure statement

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