

Research on the education of food safety control course from the perspective of “three complete education”

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Abstract: in order to thoroughly implement the basic concept of “three complete education” of “all staff, whole process and all-round”, promote the integration of production and education in the course of food safety control, a professional required course, and advocate the participation of all staff, such as “teachers as the leading role, enterprise experts and student leaders as the auxiliary role, and subject professors, subject teachers and professional counselors as the assistance”, From the perspective of “specialty + occupation + industrial culture”, through the whole teaching process of “pre class, in class and after class”, establish a trinity curriculum education system of “professional knowledge as the leading + vocational skills as the goal + food industry culture as the inside story”.

Key words: Sanquan education; Food safety control; Curriculum education

1. background

At present, with the development of social economy and the improvement of people’s quality of life, consumers’ demand for “food first” is getting higher and higher. In order to meet the needs of the rapid development of the food industry for talents, the Ministry of Education approved the establishment of the food quality and safety major in 2001, and began to formally enroll students the following year. As of 2017, at least 350 colleges and universities in China have opened this major and trained at least 20000 professionals for the country every year. Henan Agricultural University is the first agricultural university to set up and cultivate the professional talents.

The course group of food safety control in the school of food science and technology of Henan Agricultural University is responding to the call of “three complete education”, and thoroughly implementing the concept of all-round and whole process education into the course, It advocates “the teacher as the leading role, the enterprise experts and student leaders as the auxiliary, the subject professors, subject teachers, professional counselors as the assistance and all other staff participation, and runs through the whole teaching process of” pre class, in class and after class “from the perspective of” specialty + occupation + industrial culture “, Establish a trinity curriculum education system of “professional knowledge as the leading + vocational skills as the goal + food industry culture as the inside story”. Over the years, the course has played an important role in achieving the goal of professional talent training, cultivating about 2000 compound and innovative professionals at home and abroad, and serving the national economic development and the construction of beautiful villages.

2. professional education

Food safety control is a core course in the talent training system of food quality and safety specialty, which plays an important supporting role in achieving the goal of professional talent training. Through joint venture experts, professional professors, professional teachers and course teachers, the course team investigated and studied the training programs of relevant professional talents in domestic colleges and universities, combined with the demand of local characteristic food industry in the province, and according to the knowledge and skills requirements of the society for graduates, examined the employment needs and career demands of students, and determined the training programs and training objectives of professional talents, Cultivate students’ good professional ethics, master the systematic knowledge and skills of related basic disciplines such as biology, chemistry and management, and be able to skillfully use the basic knowledge and technologies such as food processing, food analysis and inspection, and food safety supervision to serve the food related industries and fields such as food production, processing, and circulation, and have the feelings of home and country, judgment thinkingSenior compound talents with all-round development of morality, intelligence, physique, art and labor who have the ability to create innovation and the spirit of solidarity and cooperation. In this way, professional professors, professional teachers, enterprise experts, and course lecturers can work together to educate and professionally educate people.

Professional teachers, counselors and course team teachers closely follow the development trend of domestic and foreign political news, food industry and food safety control technology, deeply explore the ideological and political elements to improve students’ professional frontier knowledge and scientific research literacy, inspire students’ interest in food safety control, encourage students to consult more materials and share learning achievements, Play the role of professional education and ideological and political education of the curriculum.

3. Professional education

Henan Agricultural University’s “food safety control” course team contacted universities at home and abroad, especially well-known universities. Universities that opened food quality and safety majors earlier and universities that opened the “food safety control” course mobilized experts and professors on the basis of voluntary participation to drive the production management personnel, safety control personnel and entrepreneurs of well-known enterprises, And young doctors with different academic qualifications and knowledge backgrounds give advice and suggestions for this textbook, and build a course textbook compilation team composed of at least five colleges, three enterprises and 15 compilers to ensure that team members participate in the compilation of textbooks and the practical application of later textbooks for a long time, and ensure the compilation of a highly readable and applicable textbook, The textbook of food safety control

with the characteristics of “integration of production and education”.

The teaching objectives and content system of the course “food safety control” constantly update the course content and teaching methods, support the cultivation of professional talents, and achieve the educational goal of cultivating talents with sustainable development for enterprises. The teaching goal of this course is to let students know the development trend of food safety keeping pace with the times, be familiar with the basic concepts of food safety and food hazards, be familiar with the main problems and influencing factors of current food safety, and be able to skillfully explain the food safety control technologies and methods, especially the core contents and application steps of SSOP, gap, GMP, etc. Have the ability to analyze and control food safety, cultivate students’ comprehensive abilities such as independent thinking, teamwork, and innovative practice, and be able to serve enterprises and institutions such as food processing enterprises, food circulation, and scientific research institutes after graduation, and engage in food safety prevention and control, food safety supervision, and scientific research on food safety, Lay a foundation for students to go to social service food enterprises and their own sustainable development.

Food safety control was approved as a core demonstration course of Henan Agricultural University in 2019. It has built online resources with independent property rights. It relies on the MOOC website of China University to build SPOC school specific courses. In 2020, it won the second prize of Henan Province’s online excellent courses. In 2021, it was approved as a school level online excellent course. In 2022, it was approved as a school level online and offline mixed first-class course. In the teaching process, based on the OBE concept, PBL and other teaching methods are adopted. Relying on a specific food safety control project, project leaders are set up to carry out project division and cooperation, discussion, implementation, and achievement sharing, and drive students to consult data, analyze and discuss, learn, filter, summarize, so as to achieve learning and use. Present the professional ability training objectives of food safety control system text, report summary, application and certification.

In online teaching, the teachers of the course group include online teachers of enterprises, pre class distribution of preview content, regular distribution of unit test tasks and experimental content, irregular distribution of thematic discussion of unit theme projects, MOOC classroom test content in class, thematic discussion and Q & A after class, etc. members of each food safety control group, according to the theme content of the project undertaken, Group discussion, division of labor and cooperation, access to relevant data, analysis and discussion, editing and production, summary of group learning results, formation of theme report, production of PPT or group report, selection of representatives for presentation and report, scoring and assessment of all participants and teachers, and counting into the average score. This project driven learning activity can effectively improve the students’ team cooperation ability, organization ability, communication ability and other “core professional qualities”. The whole process is the whole process management of the food safety process control of a product, from dividing groups, electing team leaders, group discussion, unifying ideas, division of labor and cooperation, to writing reports and reporting results, Formed a reasonable connection between curriculum theory teaching and vocational teaching.

4. Cultural Education

The Chinese nation adheres to the concept of “grain for food”, takes agriculture as the foundation, and is hardworking and brave. The inclusive character of Chinese cuisine such as wonton and Tangyuan is the symbol of the unity and self-improvement of the Chinese nation. Soybean food originated in China, bean curd invented by Huainan king, steamed bread and steamed stuffed bun invented during the Three Kingdoms period, noodles and snacks developed in the Tang Dynasty will affect human life until modern times and even in the future. The Chinese food culture represented by farming culture is rational, rich and scientific. The differences of food culture are reflected in cooking methods, dining methods, tables and tableware, which also control people’s food structure and have a more profound impact on food production and the fate of the country.

Henan Province is a major agricultural province, and the total output value of food industry has been in the forefront of the country for many years. From 1.2 trillion yuan in 2012 to 4 trillion yuan in 2020, it has achieved a leap from “Chinese granary” to “Chinese kitchen” and “World Table”; It has three leading advantageous industries (flour products, meat products and dairy products) that are first-class in China, three regional advantageous industries (fruits and vegetables, fats and beverages) that have strong competitiveness in China, and has cultivated growth industries with important influence in China (leisure food, flavoring products, etc.). Six supporting systems (enterprises and brands, modern logistics, quality and safety, human resources, industrial base, and technological innovation) have been constructed, forming a modern food industry base with optimized structure, reasonable layout, obvious characteristics, and prominent advantages.

In the new era, the talent goal of higher education is to cultivate new compound talents with responsibility, responsibility, national feelings, international vision and innovative practice spirit. In the process of Ideological and political education, the course team of food safety and control implemented the basic concept of “three complete education” and the fundamental task of “Building Morality and cultivating people”, cooperated with ideological and political teachers, professional teachers, counselors and teachers, communicated with each other, deeply excavated the ideological and political elements of the course, carried out teaching reform, and established a unique practice mode of Ideological and political education. The ideological and political teaching of the course is in the form of lectures, watching videos, MOOC and other forms, focusing on the themes of food safety law, local characteristic enterprise propaganda videos and so on, enhancing students’ awareness of crisis, legal system, natural and harmonious environmental protection, and social responsibility, and promoting the development concept of “green waters and green mountains are golden mountains and silver mountains”, “innovation, coordination, green, openness, and sharing”, Guide students to establish a correct professional outlook, be an ideal and ethical person for food safety control, and carry out social responsibility, professional ethics and food safety prevention and control throughout their career; We

should have food safety awareness, food safety prevention and control ability, and vigorously publicize the food safety law; It is necessary to strengthen the safety control work in the whole industrial chain of food before, during and after production, so as to minimize the risk of food safety and ensure the safety and health of the broad masses of the people.

5. outlook

In order to meet the demand of the food industry for higher education personnel training in the new era, the College of food science and technology of Henan Agricultural University has constructed the curriculum education system of food safety control with output as the guidance and the concept of “three complete education” as the cornerstone, so as to play a supporting role in the professional personnel training and local economic development. It is hoped that the reform practice of this course will drive the reform of the education mode of more food professional courses, play a role of demonstration and radiation, and jointly contribute to the higher education of food science to serve the talent demand of the national food industry.

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