Journal of Education and Educational Research
ISSN: 2957-9465 | Vol. 4, No. 1, 2023

Teaching Reform in The Demonstration Professional Construction Site of "Curriculum Ideology and Politics"

Jiaan Wang, Siwen Gu *, Siqi Zhang, Linghao Wu

College of Optical Engineering, Changzhou Institute of Technology, Jiangsu, 213302, China

Abstract: This major is guided by the principle of "application first, strengthening engineering practice ability, integrating industry and education, highlighting the background of optoelectronic industry, combining industry and management, and showing quality management characteristics". It is dedicated to cultivating application-oriented engineering talents who can meet the needs of regional optoelectronic industry and have the ability to design, implement and apply quality control systems for measurement and control systems and instrumentation production processes, and can engage in technology development, engineering application, production operation, quality management and other work in instrumentation and related fields. The orientation of the major is clear, and the service orientation is clear, which is in line with the development orientation and school direction of the university. Curriculum ideological and political teaching reform for this professional course has the unparalleled advantages of traditional science and technology courses. The education in humanistic cultivation, good moral development and solving complex engineering problems is to explore the resources of curriculum ideology and politics in the curriculum teaching.

Keywords: Curriculum Ideology and Politics; Professional Construction Site; Teaching Reform.

1. Introduction

The major started to enroll in 2000, and was approved as a special major of the university in 2008; it was approved as a key construction major of Jiangsu Province in 2012 and passed the acceptance in 2016; the Experimental Teaching Center of Optoelectronic Technology was approved as a construction site of Jiangsu Province Experimental Teaching and Practice Education Center in 2013 and passed the acceptance in 2016, and was approved as a construction site of first-class majors in Jiangsu Province in 2019 and national first-class majors in 2020, and passed the international engineering education accreditation in 2022, and in the same year, it was approved as the brand cultivation point of Jiangsu Province for the integration of industry and education.

There are 16 full-time teachers, including 14 doctors and 2 masters; 1 senior, 4 associate and 11 middle-level teachers; 11 double-teacher teachers. There are 9 people selected for the talent project above the municipal level. We employ 12 part-time teachers from enterprises and industrial professors to participate in training program development, course teaching and graduation design guidance.

In the past 2 years (2021-2022), the acceptance rate of fresh graduates for graduate school was 25% and 31.1% respectively, and the employment rate was 97.22% and 98.64% respectively. A large number of students have entered mettler toledo (China) Co., Ltd., Suzhou Matsushita Electric Research and Development Co., Ltd., Changzhou TrinaSolar Co., Ltd., Changzhou XingYu Co., Ltd. and other high-quality enterprises. Graduates are very popular with employers because of their strong practical ability, good teamwork spirit and strong post competence.

2. Achievements of the Demonstration Professional Construction Point

2.1. Training Objectives of the Major

The major cultivates builders and successors of the socialist cause who are well-rounded in moral, intellectual, physical and aesthetic development to meet the needs of local economic and social development, as well as application-oriented engineers and technicians who can engage in the development, engineering application, operation and maintenance of automatic testing systems and modern quality management in instrumentation and other industries and related fields [1-2].

2.2. Orientation of the Major

This major is guided by the principle of "application first, strengthening engineering practice ability, integrating industry and education, highlighting the background of optoelectronic industry, combining industry and management, and showing quality management characteristics". It is dedicated to cultivating application-oriented engineering talents who can meet the needs of regional optoelectronic industry and have the ability to design, implement and apply quality control systems for measurement and control systems and instrumentation production processes, and can engage in technology development, engineering application, production operation, quality management and other work in instrumentation and related fields [3-5]. The orientation of the major is clear, the service orientation is clear, and it is in line with the development orientation and school direction of the university; the personnel training program is scientific and reasonable, and it implements the fundamental task of cultivating people with moral character, always puts ideological and political education through the whole process and all links of personnel training, builds a scientific and reasonable " curriculum ideology and politics" professional curriculum system and teaching system, combined with professional characteristics and course categories to promote the construction of "curriculum ideology and politics " and promote the overall development of students' moral, intellectual, physical, social and aesthetic development. At present, we have trained more than 2,000 engineering talents in the field of instrumentation.

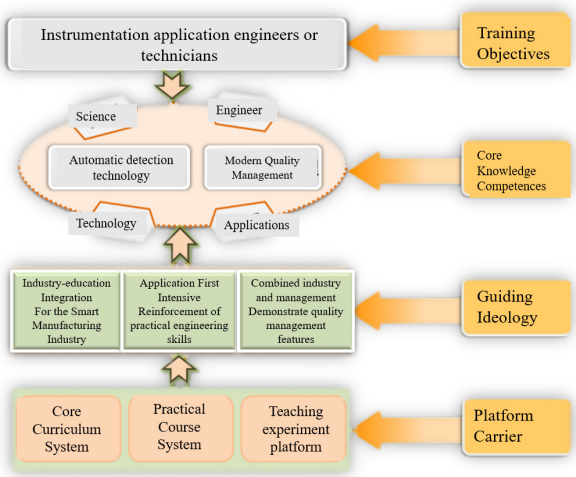


Figure 1. Professional talent training system

2.3. The Construction of "Curriculum Ideology and Politics" in Major

The major insists on integrating value building, knowledge transmission and ability cultivation, and on the basis of implementing the national standards of teaching quality of undergraduate majors, it has revised the talent cultivation program that meets the requirements of the construction objectives and contents of " curriculum ideology and politics "; it has integrated "curriculum ideology and politics" into every course and all practical teaching links. In accordance with the construction requirements of "curriculum ideology and politics", we can combine the characteristics, thinking methods and value concepts of different courses, and deeply explore the content of "curriculum ideology and politics" to form a unified teaching content system of "curriculum ideology and politics" with professional education. The system is reflected in the whole process of course teaching construction. At present, there are first-class offline courses in Jiangsu Province, such as "sensor principle and application", "engineer professionalism special course group", "quality management course design" and other school-level curriculum ideology and politics model courses and the school-level ideology and politics education teaching reform special project of research and practice of teachers' teaching development and teaching ability cultivation in " curriculum ideology and politics".

2.4. Faculty Building

The major is responsible for organizing the construction of professional thinking and politics and "curriculum ideology and politics"; the professional teachers have a reasonable structure and high overall quality level; the teachers are based on professional teaching and consciously carry out curriculum ideology and politics, creating a high-level "curriculum ideology and politics" teacher team; We pay attention to the improvement of teaching ability of teachers, and regularly organize teachers to participate in special training and seminars on "curriculum ideology and politics". During the period, the teachers of the professional department won one national first prize and three third prizes in the teaching competition for young teachers of electronic information in higher education institutions of the Ministry of Education, and one third prize in the school-level lecture and micro-teaching competition.

2.5. Training of Students

Adhering to the concept of "student-centered, output-oriented and continuous improvement", the university promotes the all-round development of students, effectively stimulates their learning interests and potentials, enhances their innovative spirit, practical ability and sense of social responsibility, and graduates are highly recognized by the industry and well evaluated by the society as a whole. In the past two years (2021-2022), the acceptance rate of recent graduates in graduate school was 25% and 31.1% respectively, and the employment rate was 97.22% and 98.64% respectively. A large number of students have entered mettler toledo (China) Co., Ltd., Suzhou Matsushita Electric Research and Development Co., Ltd., Changzhou TrinaSolar Co., Ltd., Changzhou XingYu Co., Ltd. and other high-quality enterprises. Graduates are very popular with employers because of their strong practical ability, good teamwork spirit and strong post competence.

2.6. Quality Assurance

1. Strengthen the organization and management. Under the leadership of the party committee of the college, the party and government together, the party and government leaders attach great importance to the situation, the professional department actively organized full-time teachers to carry out the course construction of "curriculum ideology and politics", and regularly held seminars to exchange construction experience.

2. Implementing financial guarantee. Relying on the funds for the construction of first-class majors in Jiangsu Province and the construction of national first-class majors, the major departments are supported to carry out the construction of curriculum ideology and politics, and various kinds of resources are coordinated to increase the investment in the construction of curriculum ideology and politics.

3. Strengthen the assessment and evaluation. Establish and improve the multi-dimensional evaluation system and supervision and inspection, incentive and restraint mechanism of the effectiveness of the construction of curriculum ideology and politics of the professional department, and integrate the construction of curriculum ideology and politics into the construction of first-class majors and professional certification work.

3. Conclusion

In this paper, through the teaching reform practice of the demonstration professional construction site of " curriculum ideology and politics", from the integration of industry and education, with the combination of enterprise experts and theoretical lectures on campus, the reform is carried out in six aspects, including the training objectives of the major, the orientation of the major, the construction of the "curriculum ideology and politics" of the major, the building of the faculty, the training of students and the quality assurance, which has cultivated students' ability to analyze complex engineering problems and strengthened the concept of sustainable development of the industry.

Acknowledgments

This article is supported by the project of "Curriculum Ideology and Politics " Model Professional Construction Site (project number: 30120300100-zy-03).

References

[1] Xiao L., Du L., Huang P. Ideological and Political Exploration of Linear Algebra Course in the Perspective of HPM. Advances in Education, 2022, 12(11): 4313-4318.

[2] Luo M. A Probe into the Teaching of Preschool Education from the Perspective of Course for Ideological and Political Education. Vocational Education, 2021, 10(1): 40-43.

[3] Feng L., Wang Y., Zhang L., Yang Y. Research on the Collaborative Education Path of College Psychological Courses and Ideological and Political Education from the Perspective of Curriculum Ideology and Politics. Creative Education Studies, 2021, 9(5): 1479-1486.

[4] Yan X. Practical Construction of the "Great Ideological and Political Course" from the Perspective of the Integration of Industry and Education and School Enterprise Cooperation. Advances in Social Sciences, 2023, 12(1): 196-200.

[5] You W., Wang Q. Research on Ideological and Political Construction of Career Guidance Course for College Students from the OBE Perspective. Advances in Education, 2023, 13(3): 1-2.