

# Research on the Construction of Curriculum Civics and Politics in the Context of New Liberal Arts and New Engineering Sciences

## -- Taking GUET as an Example

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### Abstract

This study focuses on the practice of curriculum civic politics construction in Guilin University of Electronic and Technology (GUET) in the context of new liberal arts and new engineering disciplines. It analyzes in depth the connotation and inner connection between new liberal arts, new engineering and curriculum Civics, elaborates in detail the overall planning of the GUET in terms of the construction of curriculum Civics, the specific cases of practice of curriculum Civics in the new liberal arts and new engineering, and evaluates the effectiveness of the construction in multi-dimensional aspects. At the same time, the challenges faced by the university in the construction of curriculum Civics and Politics are discussed in depth, including the lack of depth and breadth of conceptual integration, the dilemma of optimizing teaching resources and methods, and the imperfection of the synergy mechanism. Based on this, a series of targeted strategic recommendations are put forward, such as deepening the conceptual cognitive integration, enriching teaching resources and innovating teaching methods, and improving the synergistic mechanism, etc., with a view to providing useful references and lessons for colleges and universities to promote the construction of Civics and Politics of Curriculum under the background of new liberal arts and new engineering disciplines, and to help cultivate high-quality and innovative talents with both integrity and competence.

### Keywords

New Liberal Arts; New Engineering; Curriculum Civics; GUET.

## 1. Introduction

### 1.1. Background and significance of the study

With the acceleration of the global scientific and technological revolution and industrial change, the construction of new liberal arts and new engineering has become an important strategic direction for the innovative development of higher education. The new liberal arts aims to break the disciplinary barriers of traditional liberal arts, promote the cross-fertilization of liberal arts with science, technology, medicine and other disciplines, and cultivate composite liberal arts talents with interdisciplinary thinking and innovation ability; the new engineering focuses on the deep integration of emerging technologies and engineering fields, and focuses on shaping outstanding engineering talents who can adapt to the industrial needs of the new

era. In this context, the importance of curriculum Civics as a key link in the implementation of the fundamental task of establishing moral education has become more and more prominent.

As a university with distinctive electronic information characteristics, Guilin University of Electronic and Technology actively responds to the call for the construction of new liberal arts and new engineering disciplines, and deeply explores the path of the construction of ideological and political education in the curriculum, which is of great significance in many aspects. On the one hand, it helps to carry ideological and political education through the whole process of talent cultivation, enable students to establish a correct worldview, outlook on life and values while mastering professional knowledge and skills, and cultivate students' sense of family and country, sense of social responsibility, and vocational ethics; on the other hand, by integrating elements of ideology and politics into the curriculum system of the new liberal arts and the new engineering disciplines, the curriculum can be further optimized, teaching methods can be innovated, and the quality of teaching can be improved. improve teaching quality, inject new vitality into the school's connotative development, and at the same time provide practical examples for other colleges and universities to learn from in the construction of Civics and Politics in related fields.

## 1.2. Overview of domestic and international research status

In the international arena, although the concepts of “new liberal arts”, “new engineering” and “curriculum politics” have not been explicitly put forward, there have been a lot of explorations and practical experiences in the integration of interdisciplinary education, professional education and humanities education in the higher education of some developed countries. However, some developed countries have already explored and practiced many aspects of interdisciplinary education and the integration of professional education and humanities education. For example, American colleges and universities generally attach importance to general education, and through the introduction of rich and diversified humanities and social sciences courses, they cultivate students' comprehensive quality and critical thinking ability, which to a certain extent reflects the application of the concept of interdisciplinary education. In the field of engineering education, Germany's “dual system” education model emphasizes the close cooperation between enterprises and schools, and focuses on the cultivation of students' professionalism and sense of social responsibility in practice, which provides useful inspiration for the practical education of new engineering education.

Domestic research on the construction of new liberal arts and new engineering as well as the ideology and politics of the curriculum is still in its infancy, but it has shown a vigorous development in recent years. Many scholars have conducted in-depth discussions on the connotation, construction path, and talent cultivation mode of new liberal arts and new engineering disciplines, and have achieved a series of theoretical research results. In terms of curriculum Civics, the research mainly focuses on the connotation definition, value implication, implementation principles, teaching methods and other aspects of curriculum Civics. However, there are relatively few studies on the organic combination of new liberal arts, new engineering disciplines and the Civic Government of Curriculum, and most of the studies still remain at the level of theoretical discussion, and the analysis of practical cases in specific universities is not deep enough and comprehensive. The exploration and practice of GUET in this area can fill the gaps of related research to a certain extent, and provide empirical evidence for the in-depth understanding and advancement of the construction of curriculum ideology and politics in the context of new liberal arts and new engineering disciplines.

## 1.3. Research Methods and Innovations

This study utilizes a variety of research methods comprehensively. Adopting the literature research method, we extensively review the relevant literature on new liberal arts, new engineering, and curriculum civic politics at home and abroad, and sort out the existing

research results and practical experience, so as to provide a solid theoretical foundation for this study; using the case study method, we analyze in-depth the typical cases of GUET's construction of curriculum civics politics in the context of the new liberal arts and new engineering, and summarize the successful experiences and problems; through the questionnaire survey method and the interview method, we Through the questionnaire survey method and interview method, we collect feedback and suggestions from teachers and students of the university on the construction of course ideology and politics, to understand the construction effectiveness and actual needs, and to provide data support for the proposal of targeted strategic recommendations.

The innovation of this study is mainly reflected in the following two aspects: first, focusing on GUET, a university with distinctive disciplinary characteristics, and digging into its practical experience and characteristics of the construction of course ideology and politics in the context of new liberal arts and new engineering disciplines, which is highly pertinent and operative; second, organically integrating the construction of new liberal arts and new engineering disciplines with the construction of course ideology and politics in order to explore in depth the relationship between the three at the theoretical and practical levels; second, organically integrating the construction of new liberal arts and new engineering disciplines and the construction of course ideology and politics. Secondly, the organic integration of the construction of new liberal arts and new engineering disciplines with the construction of curriculum civics and politics is studied, and the intrinsic connection and synergistic development mechanism among the three are discussed in depth at both the theoretical and practical levels, which provides new perspectives and ideas for the reform of education and teaching in universities.

## **2. Theoretical Connotation of New Liberal Arts, New Engineering and Curriculum Civics**

### **2.1. Connotation and Characteristics of New Liberal Arts**

New liberal arts is an innovative development concept relative to traditional liberal arts. Its connotation is mainly reflected in the following aspects: first, interdisciplinarity is one of the core features of the new liberal arts. It breaks the boundaries between disciplines within traditional liberal arts and between liberal arts and other disciplines, promotes the cross-fusion of literature, history, philosophy, economics, management, law and other disciplines, and forms a brand-new disciplinary knowledge system and research paradigm. For example, the major of cultural industry management is the product of the cross-fusion of management, culture, art and other disciplines, aiming at cultivating compound talents who know both culture and art and have the ability of management. Secondly, innovation is an important mission of the new liberal arts. New Liberal Arts emphasizes the cultivation of students' innovative thinking and creative ability, encourages students to use interdisciplinary methods and perspectives to explore and solve complex social problems, and promotes theoretical and practical innovation in the field of humanities and social sciences. For example, in digital humanities research, the mining and analysis of historical and cultural data with the help of big data, artificial intelligence and other emerging technological means have brought new methods and ideas to traditional humanities research. Finally, epochal nature is a distinctive mark of the new liberal arts. New Liberal Arts pays close attention to the development needs of the times, actively responds to the hot issues of the society, and integrates the spirit and values of the times into the construction of disciplines and the cultivation of talents. For example, against the background of increasingly severe global environmental problems, emerging disciplines such as environmental ethics and sustainable development economics have come into being, providing theoretical support of humanities and social sciences for solving environmental problems.

## 2.2. Connotation and Characteristics of New Engineering Sciences

New Engineering is an innovative concept of engineering education put forward in the context of the new round of scientific and technological revolution and industrial change. Its connotation mainly includes the following aspects: first, emerging technology leadership. Driven by emerging technologies such as artificial intelligence, big data, Internet of Things, blockchain, etc., the new engineering discipline upgrades and transforms the traditional engineering majors, while giving rise to a number of emerging engineering majors, such as data science and big data engineering, robotics engineering, intelligent manufacturing engineering and so on. These emerging majors are closely related to the development trend of cutting-edge technologies, and cultivate engineering and technical talents to meet the needs of future industries. Secondly, multidisciplinary cross-fertilization. The new engineering emphasizes the in-depth cross-fertilization of engineering and other disciplines, breaking the boundaries of disciplines and forming a comprehensive disciplinary knowledge structure. For example, the biomedical engineering program integrates the knowledge of biology, medicine, electronic information engineering, materials science and other disciplines, aiming to cultivate composite talents capable of researching, developing and applying high-end medical equipment. Third, the cultivation of engineering practice and innovation ability. New Engineering emphasizes the cultivation of students' engineering practice and innovation ability. Through practical teaching sessions, project-driven teaching, and industry-university-research cooperation, students can exercise their practical ability in actual engineering projects and cultivate innovative thinking and the ability to solve practical problems. For example, in the innovation and entrepreneurship practice course, students carry out the research and development of engineering projects as a team, and participate in the whole process from the selection of project topics, program design, implementation to the transformation of results, which effectively improves the engineering practice ability and innovation ability.

## 2.3. Connotation and Objectives of Curriculum Civic Politics

Curriculum Civics and Politics is an educational concept and teaching method that integrates elements of ideological and political education into the teaching process of various courses. Its connotation is mainly reflected in the following aspects: first, value leadership. Curriculum Civics and Politics emphasizes that while teaching professional knowledge and skills, all kinds of courses should pay attention to value leadership for students, guide students to set up a correct worldview, outlook on life and values, and cultivate students' patriotism, collectivism, socialist core values and vocational moral literacy. For example, in the science and technology courses, students' national pride and innovative spirit can be stimulated by introducing the achievements of China's scientific and technological development and the patriotic deeds of scientists. Second, the organic unity of knowledge transfer and value shaping. Curriculum Civics requires teachers in the teaching process, can not be ideological and political education and professional knowledge of the teaching of the separation, but the Civics elements cleverly integrated into the professional knowledge of the explanation, so that the two mutual penetration, mutual promotion, to achieve the organic unity of knowledge transfer and value shaping. For example, in literature courses, through the interpretation of classic literary works, students are guided to understand the spirit of the times, humanistic care and moral concepts contained in the works. Thirdly, it is the whole staff, whole process and all-round education. Curriculum ideology and politics is not only the task of teachers of ideological and political theory courses, but the common responsibility of all teachers. It requires that ideological and political education be carried out throughout the whole process of education and teaching, covering all aspects of classroom teaching, practical teaching, extracurricular counseling, and campus culture construction, forming a pattern of all-member, all-process, and all-around nurturing of people.

The goal of curriculum ideology and politics is to cultivate high-quality talents who are both moral and talented. Through the construction of Curriculum Civics and Politics, students can have good ideological and political qualities and moral qualities on the basis of mastering solid professional knowledge and skills, and be able to consciously practice the socialist core values in their future career and social life, and contribute to the construction of the country and the development of the society.

### **3. Analysis of the Current Situation of The Construction of Curriculum Ideology and Politics in GUET**

#### **3.1. Overall planning of the university's curriculum ideology and politics construction**

GUET attaches great importance to the construction of curriculum ideology and politics, and has formulated a series of overall planning and policy measures. Each second-level college has set up a leading group for the construction of course ideology and politics, with the head of the course group as the leader, coordinating the work of the construction of course ideology and politics across the university. The guiding ideology, overall goal, basic principles, main tasks and safeguard measures for the construction of course ideology and politics have been clearly defined. According to the principle of “integrated planning, classified implementation, and gradual promotion”, the school divides the construction of curriculum civic politics into three phases: the first phase is the pilot exploration phase, selecting some courses to carry out the pilot construction of curriculum civic politics and accumulating experience; the second phase is the comprehensive promotion phase, which is to promote the experience of the construction of curriculum civic politics throughout the whole school, and to realize the full coverage of curriculum civic politics; the third phase is the full coverage of curriculum civic politics. The third stage is the deepening and upgrading stage, which summarizes and evaluates the results of the construction of curriculum Civics and politics, further deepens the connotation construction and improves the construction quality.

In terms of resource allocation, the university has set up a special fund for the construction of Curriculum Civics and Politics, which is used to support the teaching reform of Curriculum Civics and Politics, teacher training, and the construction of teaching resources. At the same time, the university strengthens the construction of the teaching team of Civics and Politics of the curriculum, selects a group of teachers with high political quality and strong business ability to be the backbone of Civics and Politics of the curriculum, and sets up a number of Civics and Politics of the curriculum teaching teams, which carry out Civics and Politics of the curriculum teaching research and practice through teamwork. In terms of teacher training, the university regularly organizes teachers to participate in the special training on curriculum civics and politics, and invites experts and scholars to the university to carry out lectures and training activities, so as to improve teachers' understanding of curriculum civics and politics and their teaching ability. In addition, the school also encourages teachers to carry out research and reform practice on the teaching of Curriculum Civics and Politics, and recognizes and rewards teachers and teams who have made outstanding achievements.

#### **3.2. Practical Cases of Building Civics and Politics in New Liberal Arts Courses**

Taking the communication science major of GUET as an example, it has carried out various explorations and practices in the process of course ideology and politics construction. In the setting of course objectives, the cultivation of students' sense of social responsibility, professional ethics and correct concepts of communication are explicitly included. For example, in the course “Introduction to Communication”, teachers guide students to think about the role of communication in social development and the social responsibility of communicators while

explaining communication theory. By analysing cases of false news, students are made to realize the importance of disseminating truthful information and maintaining social stability, so as to establish correct communication values.

In terms of teaching content design, the elements of ideology and politics are deeply explored and closely integrated with professional knowledge. For example, in the course of News Interviewing and Writing, the teacher organizes students to interview outstanding teachers of the school, alumni entrepreneurial typical, etc., in the process of practice to cultivate students' dedication, innovative consciousness and sense of identification with the school and society. At the same time, in the course content into the development of China's journalism in the course of important events and figures, such as Fan Changjiang and other older generation of journalists of patriotic feelings and professional conduct, to stimulate students' patriotic feelings and sense of mission of the journalism profession.

In terms of teaching method innovation, case teaching method, group discussion method and other ways to integrate into the ideological education. In the "Principles of Advertising" course, the teacher introduces domestic and international excellent advertisement cases and guides students to analyze the cultural values, social concepts and other elements of ideology contained therein. For example, by analyzing some public welfare advertisements, such as environmental protection theme advertisements and advertisements of caring for the disadvantaged groups, students can cultivate their sense of social care and concept of environmental protection. At the same time, students are organized to design public welfare advertisements in groups to cultivate their teamwork spirit and sense of social responsibility in the process of teamwork.

### **3.3. Practical Cases of Civics Construction in New Engineering Courses**

In the electronic information engineering program of GUET, the construction of curriculum Civics and Politics has also achieved remarkable results. In the construction of the curriculum system, Civic-Political education is carried through all aspects of the specialized courses. For example, in the course of Principle of Circuit, while explaining the basic principles and analysis methods of circuits, the teacher introduces the development history and achievements of China's electronic information industry, such as China's leading position in the field of 5G communication technology, to stimulate the students' sense of national pride and love for their specialty. By introducing the scientific research stories of scientists in the field of electronic information in China, such as the "Two Bombs and One Star" fathers who overcame technological problems under difficult conditions, we cultivate students' perseverance and the spirit of innovation.

In the practical teaching, we emphasize on cultivating students' engineering ethics and teamwork spirit. For example, in the electronic circuit experimental course, teachers require students to strictly abide by the experimental operating procedures to cultivate students' scientific rigor. In the comprehensive experimental program, students complete the experimental tasks in groups, and teachers guide students to learn communication, coordination and mutual support in teamwork to cultivate teamwork spirit. At the same time, environmental protection and safety awareness in engineering practice are emphasized in the experimental process, such as reasonable treatment of experimental waste, correct use of experimental equipment, etc., to cultivate students' social responsibility awareness.

In the graduation design session, students are required to design with practical engineering projects and consider the social value and impact of the projects. For example, some students choose to design smart home system, and the teacher guides students to think about how to make the smart home system more in line with the needs of the elderly, the disabled and other special groups, reflecting humanistic care; at the same time, the students are required to

consider the smart home system in terms of energy consumption, information security and other aspects, to cultivate the students' sense of engineering ethics and social responsibility.

### **3.4. Evaluation of the Effectiveness of Civic and Political Construction of Courses**

In order to comprehensively assess the effectiveness of the construction of course ideology and politics, GUET has adopted a multi-dimensional assessment method. From the student level, students' feedback on course Civics was collected through questionnaires and student symposiums. The survey results show that most students recognize the teaching of course Civics and Politics, and believe that the teaching of course Civics and Politics helps them better understand the social value and meaning of professional knowledge, and improves their ideological and political literacy and professional ethics. For example, in the new liberal arts courses, students' concern for social issues and sense of responsibility increased significantly after participating in social practice projects; in the new engineering courses, students paid more attention to engineering ethics and social impact factors in their graduation designs.

At the teacher level, teachers' ability to teach course Civics and its teaching effect were assessed through teachers' self-assessment, peer assessment and evaluation by teaching supervisors. The assessment results show that teachers' understanding of course Civics and their teaching ability have been significantly improved, and they are able to better integrate Civics elements into their professional teaching. Many teachers have actively explored innovative teaching methods in the teaching process and formed a number of cases of teaching Civics and Politics in courses with exemplary effect. For example, some teachers have adopted project-driven teaching methods in new engineering courses, organically combining Civic and Political education with project practice, and achieved good teaching results.

From the overall level of the school, the construction of curriculum Civics and Politics has promoted the connotative development of the school. The quality of talent cultivation of the school has been further improved, and the competitiveness and social reputation of the graduates in the job market have been continuously improved. At the same time, the construction of Curriculum Civics and Politics also promotes the teaching reform and discipline construction of the school, promotes the construction and development of the teaching team, and creates a good campus cultural atmosphere.

## **4. Challenges to the Construction of Curriculum Civics and Politics in GUET**

### **4.1. Insufficient Depth and Breadth of Integration of Curriculum Civics and Politics Concepts**

Although the University of Electronic Science and Technology of Guilin has achieved certain results in the construction of curriculum Civics and Politics, the understanding and grasp of the concept of curriculum Civics and Politics by some teachers are still not precise and deep enough. Some teachers in the teaching process simply add the elements of Civics and Politics to the professional knowledge, failing to realize the organic integration of Civics and professional knowledge, resulting in unsatisfactory teaching results. For example, in some science and technology courses, teachers simply mention the patriotic deeds of some scientists in class, but fail to dig deep into the intrinsic connection between these deeds and professional knowledge, so as to make students truly understand the significance of these Civic-Political elements to professional learning and personal growth.

In addition, there are differences in the degree of promotion of curriculum Civics and Politics among different disciplines and majors. New liberal arts majors, due to their disciplinary characteristics, are relatively easier to carry out the construction of curriculum Civic-Political,

and are able to better integrate the Civic-Political elements into the teaching content and teaching activities. However, new engineering majors face some challenges in the process of curriculum Civic-Political construction, such as how to naturally and smoothly integrate Civic-Political elements into engineering technology courses, and how to organically combine engineering ethics and morality education with professional skills cultivation, etc., which still need to be further explored and practiced.

#### **4.2. Teaching Resources and Methods of Civic Politics in Courses to be Optimized**

In terms of teaching resources, although GUET has accumulated some teaching cases of Civics and Politics in courses, the number of high-quality teaching cases is still relatively insufficient, and the updating speed of teaching cases is slow, which makes it difficult to meet the constantly developing and changing teaching needs. For example, with the continuous emergence of new technologies and the rapid updating of hot issues in society, some existing teaching cases gradually appear to be old and outdated, and need to be updated and supplemented with new cases in a timely manner. At the same time, the construction of the sharing platform for the teaching resources of course Civics is not perfect enough, and the degree of sharing teaching resources among teachers is low, which is not conducive to the exchange and promotion of the teaching experience of course Civics.

In terms of teaching methods, some teachers still adopt the traditional indoctrination teaching methods, which lacks innovative consciousness and ability and is difficult to stimulate students' interest and initiative in learning. Curriculum Civics teaching needs to adopt diversified teaching methods, such as case teaching method, project-driven teaching method, situational teaching method and so on, in order to enhance the attractiveness and infectiousness of teaching. However, some teachers fail to use these teaching methods flexibly according to the characteristics of the courses and the needs of the students in the teaching process, which leads to the disconnection between Civics education and professional teaching, and the teaching effect is greatly reduced.

#### **4.3. Incomplete Synergy Mechanism for Civic and Political Construction of Courses**

In terms of on-campus synergy, although GUET has set up a leading group for the construction of Civic and Political Construction of Courses, in practice, the synergy between the teaching management department, the student work department, and the colleges is not close enough. For example, there is a lack of effective communication and coordination between the teaching management department in terms of curriculum and teaching arrangements and the student work department in terms of the organization of students' ideological and political education activities, which leads to the failure of the teaching of curriculum ideology and politics and students' ideological and political education activities to form an organic whole. There are also relatively few exchanges and cooperation among colleges in the construction of curriculum ideological and political education, and there is a lack of cross-college teaching team construction and teaching resource sharing mechanism for curriculum ideological and political education.

In terms of off-campus collaboration, the cooperation between schools and enterprises and social organizations in the construction of curriculum civics and politics is still in the initial stage, with a single mode of cooperation and insufficient depth of cooperation. Enterprises, as an important place for students' internship and practice, have unique advantages in students' professional ethics training and engineering ethics education, etc. However, at present, the mechanism of collaborative education between schools and enterprises in the construction of curriculum civics and politics has not been fully established, and the enthusiasm and initiative

of enterprises to participate in the construction of curriculum civics and politics need to be further improved. In addition, the cooperation between schools and social and cultural institutions, communities and other institutions in the construction of curriculum ideology and politics also needs to be strengthened, failing to fully integrate social resources for the service of the construction of curriculum ideology and politics.

## **5. Strategies and Suggestions for the Construction of Civics and Politics of Courses in GUET under the Background of New Liberal Arts and New Engineering Sciences**

### **5.1. Deepen the cognition and integration of the concept of course ideology and politics.**

#### **5.1.1. Strengthen teacher training and learning exchange**

##### **(1) Carry out systematic training courses**

The university should organize regular training on the topic of curriculum ideology and politics, and invite experts and scholars in ideology and politics education as well as teachers with rich experience in the construction of curriculum ideology and politics to give lectures. The content of the training should not only cover the basic theory, connotation and value of the Civic Politics of the curriculum, but also deeply analyze the method of digging out the Civic Politics elements in the curriculum of the new liberal arts and new engineering majors and the skills of integrating them into the curriculum. For example, for the new liberal arts majors, it explains how to integrate Civic-Political education from the perspectives of cultural inheritance and analysis of social trends in the courses of literature, history and philosophy; for the new engineering majors, it focuses on mining Civic-Political points from the perspectives of ethics of science and technology and social responsibility of engineering in engineering and technology courses.

##### **(2) Promote Teachers' Learning and Exchange**

Establish a learning and exchange platform for teachers to learn Civics in the curriculum, such as organizing regular on-campus seminars and workshops. Teachers are encouraged to share their successful experiences and confusions in teaching Civics and Politics in the curriculum, and promote mutual learning and inspiration among teachers specializing in different disciplines. At the same time, teachers are selected and sent to participate in relevant academic conferences and teaching observation activities at home and abroad to broaden their horizons, understand the cutting-edge dynamics, and learn advanced experience in the construction of Curriculum Civics. For example, teachers of new engineering disciplines are selected to participate in the symposium on curriculum ideology and politics in the international engineering education conference to learn the practical experience of foreign universities in engineering ethics education integrated into curriculum teaching.

#### **5.1.2. Establishing the teaching guidance team of course ideology and politics**

##### **(1) Team formation and selection**

Select a group of teachers with high political quality, rich teaching experience and in-depth research on course civics and politics to form a course civics and politics teaching guidance team. The team members should cover different disciplines, such as new liberal arts and new engineering, in order to provide comprehensive and professional guidance for all teachers. The selection process can be done through teachers' voluntary application, college recommendation and school audit to ensure the quality and representativeness of the team members.

##### **(2) Personalized Guidance and Consultation Services**

The teaching guidance team provides teachers with one-on-one guidance and consulting services on the teaching design of courses. According to the subject characteristics, teaching objectives and student group characteristics of the courses taught by the teachers, the team helps the teachers to accurately locate the entry point of Civic-Political education, carefully design the teaching links, and realize the natural integration of Civic-Political elements and professional knowledge. For example, for a young teacher teaching a new liberal arts course, team members can discuss with him how to guide students to set up correct cultural values through the analysis of current cultural phenomena in the course teaching, without affecting the rhythm and effect of professional knowledge.

## **5.2. Enriching the teaching resources and innovative teaching methods of course ideology and politics**

### **5.2.1. Construct a case base for teaching Civics and Politics in courses**

#### (1) Collecting and organizing cases

Teachers of the university are widely solicited to collect cases of teaching Civics and Politics, and teachers are encouraged to share their teaching cases that have successfully integrated Civics and Politics elements in their teaching practice. The university organizes a special evaluation team to select the collected cases and screen out the outstanding cases with representativeness, innovativeness and replicability. The cases are categorized and organized according to different disciplines such as new liberal arts and new engineering, and a case bank of Civics teaching cases is established. For example, in the case bank of new liberal arts, the case of cultivating students' humanistic sentiment through the interpretation of classic works in literature courses, and the case of guiding students to understand the concept of sustainable development from the analysis of economic development model in economics courses are included; in the case bank of new engineering disciplines, the case of stimulating students' patriotism and innovation spirit with the history of China's development of communication technology in electronic information engineering courses is sorted out; the case of emphasizing engineering ethics from the analysis of engineering accidents in mechanical engineering courses is selected and selected as representative and innovative cases for popularization. In the new engineering casebook, we have compiled a case study on the development of China's communication technology to stimulate students' patriotism and innovative spirit in the electronic information engineering course, and a case study on the importance of engineering ethics from the analysis of engineering accidents in the mechanical engineering course.

#### (2) Case updating and sharing mechanism

Establish a regular updating mechanism for the case library, replenish new teaching cases and eliminate obsolete cases in time with social development, technological progress and the advancement of teaching reform. At the same time, a sharing platform for teaching cases of course civics is set up to facilitate mutual learning and reference among teachers. Teachers can search and browse the teaching cases of different disciplines and specialties on the platform, and refer to and apply them according to their own teaching needs. For example, by developing a specialized online platform for teaching cases of course ideology and politics, teachers can quickly find cases suitable for their own courses through keyword search, discipline classification screening, etc., and can communicate and interact with case authors on the platform to further understand the ideas and implementation details of case design.

### **5.2.2. Promoting Teaching Method Innovation and Informatization Teaching**

#### (1) Application of diversified teaching methods

According to the characteristics and teaching objectives of different courses, teachers are encouraged to adopt diversified teaching methods to integrate Civic Education. In the new liberal arts courses, situational teaching methods can be adopted. For example, in the teaching

of history courses, historical scenes are created, and students are allowed to play the role of historical figures, so that they can feel the values and social significance behind the historical events through personal experience, thus cultivating students' sense of historical mission and national pride. In the new engineering courses, the project-driven teaching method is implemented. For example, in the software development courses, the development of software projects with social welfare value is taken as the driving force, and in the process of project implementation, students are guided to pay attention to the needs of the users, pay attention to the ethical issues such as data security and privacy protection, and cultivate the students' vocational ethics and sense of social responsibility.

## (2) Enhancement of Informatization Teaching Methods

Make full use of modern informatization teaching means to enhance the teaching effect of course ideology and politics. With the help of virtual reality (VR), augmented reality (AR) and other technologies, we create a more vivid and intuitive learning situation for students, and enhance the infectious force of Civic and Political Education. For example, in the cultural heritage protection course of the new liberal arts department, the use of VR technology allows students to visit cultural heritage sites virtually, to feel the charm of cultural heritage and the importance of protection, and to stimulate the students' awareness of cultural inheritance. Utilizing online course platforms, learning management systems and other informatization tools to carry out online and offline blended teaching, expanding the time and space dimension of the course's ideological teaching. For example, in the network engineering courses of new engineering disciplines, the online course platform releases civic learning materials and organizes online discussions to guide students to carry out in-depth study and exchange of civic contents such as network security laws and regulations, network ethics, etc., and at the same time combines with the offline practical teaching to cultivate the students' legal awareness and ethical literacy in the construction of actual network engineering.

## 5.3. Improve the synergistic mechanism for the construction of course ideology and politics

### 5.3.1. Strengthening on-campus collaborative education

#### (1) Multi-departmental joint mechanism

Establish a regularized communication and coordination mechanism among teaching management departments, student work departments and colleges. The teaching management department, in the process of formulating course plans and reviewing syllabi, discusses with the student work department how to carry out Civics education throughout the whole process of teaching, and ensures that the course Civics teaching and the students' ideological and political education activities are interconnected and complementary to each other. For example, when the teaching management department arranges the teaching time of professional courses, it gives full consideration to the time of the ideological and political education theme activities organized by the student work department, so as to avoid conflicts and realize the organic integration of the two in terms of content. The colleges have strengthened exchanges and cooperation among themselves, broken down disciplinary barriers, and jointly carried out research and practice of teaching ideological and political education in courses. For example, the new liberal arts colleges and the new engineering colleges have jointly formed an interdisciplinary teaching team of ideology and politics in the curriculum, and jointly developed a curriculum that integrates the knowledge of multiple disciplines of arts and sciences with the elements of ideology and politics, so as to cultivate the comprehensive literacy and innovation ability of the students.

#### (2) Collaboration between teachers and counselors

Promote the collaboration between professional teachers and counselors in the construction of Civics and Politics. Professional teachers focus on knowledge transfer and value leadership in

classroom teaching, while counselors guide students to internalize the civic knowledge learned in the classroom into their own ideological concepts and behavioral norms in students' daily management and ideological and political education activities. For example, professional teachers in the course teaching found that students in the professional ethics problems, timely feedback to the counselor, counselors through the theme of class meetings, individual conversations and other ways to carry out targeted education and guidance; counselors to understand the students in the social practice of social hot issues of concern and confusion, timely feedback to the professional teachers, professional teachers in the relevant course teaching in-depth analysis and answers to form the The counselors learn the students' concerns and confusions about hot social issues in social practice and give timely feedback to the professional teachers, who analyze and answer them in depth in the teaching of relevant courses, forming a synergy of education.

#### (2) Case updating and sharing mechanism

Establish a regular updating mechanism for the case library, replenish new teaching cases and eliminate obsolete cases in time with social development, technological progress and the advancement of teaching reform. At the same time, a sharing platform for teaching cases of course civics is set up to facilitate mutual learning and reference among teachers. Teachers can search and browse the teaching cases of different disciplines and specialties on the platform, and refer to and apply them according to their own teaching needs. For example, by developing a specialized online platform for teaching cases of course ideology and politics, teachers can quickly find cases suitable for their own courses through keyword search, discipline classification screening, etc., and can communicate and interact with case authors on the platform to further understand the ideas and implementation details of case design.

### **5.3.2. Promoting Teaching Method Innovation and Informatization Teaching**

#### (1) Application of diversified teaching methods

According to the characteristics and teaching objectives of different courses, teachers are encouraged to adopt diversified teaching methods to integrate Civic Education. In the new liberal arts courses, situational teaching methods can be adopted. For example, in the teaching of history courses, historical scenes are created, and students are allowed to play the role of historical figures, so that they can feel the values and social significance behind the historical events through personal experience, thus cultivating students' sense of historical mission and national pride. In the new engineering courses, the project-driven teaching method is implemented. For example, in the software development courses, the development of software projects with social welfare value is taken as the driving force, and in the process of project implementation, students are guided to pay attention to the needs of the users, pay attention to the ethical issues such as data security and privacy protection, and cultivate the students' vocational ethics and sense of social responsibility.

#### (2) Enhancement of Informatization Teaching Methods

Make full use of modern informatization teaching means to enhance the teaching effect of course ideology and politics. With the help of virtual reality (VR), augmented reality (AR) and other technologies, we create a more vivid and intuitive learning situation for students, and enhance the infectious force of Civic and Political Education. For example, in the cultural heritage protection course of the new liberal arts department, the use of VR technology allows students to visit cultural heritage sites virtually, to feel the charm of cultural heritage and the importance of protection, and to stimulate the students' awareness of cultural inheritance. Utilizing online course platforms, learning management systems and other informatization tools to carry out online and offline blended teaching, expanding the time and space dimension of the course's ideological teaching. For example, in the network engineering courses of new engineering disciplines, the online course platform releases civic learning materials and

organizes online discussions to guide students to carry out in-depth study and exchange of civic contents such as network security laws and regulations, network ethics, etc., and at the same time combines with the offline practical teaching to cultivate the students' legal awareness and ethical literacy in the construction of actual network engineering.

## **5.4. Improve the synergistic mechanism for the construction of course ideology and politics**

### **5.4.1. Strengthening on-campus collaborative education**

#### **(1) Multi-departmental joint mechanism**

Establish a regularized communication and coordination mechanism among teaching management departments, student work departments and colleges. The teaching management department, in the process of formulating course plans and reviewing syllabi, discusses with the student work department how to carry out Civics education throughout the whole process of teaching, and ensures that the course Civics teaching and the students' ideological and political education activities are interconnected and complementary to each other. For example, when the teaching management department arranges the teaching time of professional courses, it gives full consideration to the time of the ideological and political education theme activities organized by the student work department, so as to avoid conflicts and realize the organic integration of the two in terms of content. The colleges have strengthened exchanges and cooperation among themselves, broken down disciplinary barriers, and jointly carried out research and practice of teaching ideological and political education in courses. For example, the new liberal arts colleges and the new engineering colleges have jointly formed an interdisciplinary teaching team of ideology and politics in the curriculum, and jointly developed a curriculum that integrates the knowledge of multiple disciplines of arts and sciences with the elements of ideology and politics, so as to cultivate the comprehensive literacy and innovation ability of the students.

#### **(2) Collaboration between teachers and counselors**

Promote the collaboration between professional teachers and counselors in the construction of Civics and Politics. Professional teachers focus on knowledge transfer and value leadership in classroom teaching, while counselors guide students to internalize the civic knowledge learned in the classroom into their own ideological concepts and behavioral norms in students' daily management and ideological and political education activities. For example, professional teachers in the course teaching found that students in the professional ethics problems, timely feedback to the counselor, counselors through the theme of class meetings, individual conversations and other ways to carry out targeted education and guidance; counselors to understand the students in the social practice of social hot issues of concern and confusion, timely feedback to the professional teachers, professional teachers in the relevant course teaching in-depth analysis and answers to form the The counselors learn the students' concerns and confusions about hot social issues in social practice and give timely feedback to the professional teachers, who analyze and answer them in depth in the teaching of relevant courses, forming a synergy of education.

## **6. Research Conclusions**

### **6.1. Overall Effectiveness of Curriculum Construction**

In the context of the convergence of New Liberal Arts and New Engineering Sciences, the curriculum construction of Civics and Politics at GUET has achieved certain positive results. Through interdisciplinary integration attempts, it has broken the traditional boundaries of single-discipline teaching. For instance, joint projects with engineering majors have been

launched, enabling students to analyze social issues from both humanistic and technological perspectives, enhancing their comprehensive thinking ability.

## **6.2. Student-Centric Achievements**

### **6.2.1. Enhanced Engagement**

Student participation in Civics and Politics courses has significantly increased. The adoption of case-based teaching, which incorporates real-world engineering and social scenarios, has piqued students' interest. Surveys show that over [X]% of students are more willing to actively discuss and express their views in class compared to before the curriculum reform.

### **6.2.2. Value Cultivation**

The curriculum effectively instills values. By guiding students to discuss ethical dilemmas in emerging technologies, students develop a stronger sense of social responsibility. Many students have started to volunteer in community technology popularization projects, indicating that the values conveyed in the curriculum have been internalized into practical actions.

## **6.3. Faculty Adaptability and Growth**

Faculty members have gradually adapted to the requirements of New Liberal Arts and New Engineering Sciences. They have participated in cross-disciplinary training programs, with [X] teachers obtaining relevant certificates or finishing short-term training. This has led to an improvement in teaching quality, as reflected in more diverse teaching methods and updated teaching content, which better aligns with the current academic trends.

## **6.4. Existing Challenges**

### **6.4.1. Resource Allocation\*\***

Despite progress, resource shortages remain prominent. There is a lack of dedicated funds for interdisciplinary research in Civics and Politics. As a result, some planned teaching materials compilation and field research projects cannot be carried out smoothly, limiting the depth of curriculum development.

### **6.4.2. Interdisciplinary Coordination**

Coordinating with engineering and other science departments still faces obstacles. Different departments have varying teaching schedules and assessment systems, making it difficult to arrange joint teaching and cross-departmental practical activities seamlessly.

## **6.5. Future Prospects**

To further promote the construction of Civics and Politics curriculum, GUET should focus on strengthening resource support, such as seeking more external sponsorships and university-level policy inclinations. Additionally, establishing a regular cross-departmental communication and coordination mechanism is crucial. By continuously optimizing these aspects, the curriculum can better serve students in the era of New Liberal Arts and New Engineering Sciences, fostering more well-rounded, socially responsible graduates.

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