

The Role of Higher Mathematics in Public Security Political Work Specialty Based on the New Liberal Arts

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Abstract: The construction of new liberal arts is a systematic education reform project, which is of great significance to improve the quality of college liberal arts talents training in the new era. Under the background of new liberal arts construction, higher mathematics plays an indispensable role in the political work of public security. In fact, statistics, linear algebra and probability theory are widely used and play an important role in the public security cause. In addition, based on the follow-up study of advanced mathematics in liberal arts, students who graduate from the police officer will make a great role in crime analysis and prediction case analysis and case analysis of public safety management. Finally, based on the concept of OBE, the paper puts forward the reflection of designing the teaching content of higher mathematics in public security political work specialty.

Keywords: New liberal arts; Liberal arts higher mathematics; Public security political work specialty.

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1. A new stage of public security political work specialty

In April 2021, The important speech spirit will promote the construction of “four new” in building first-class university system, with good interdisciplinary integration “catalyst”, the existing discipline professional system upgrade, aiming at technology frontier and key areas, accelerate the context of training talents, shows that “four new” construction and discipline optimization, innovation ability, production with fusion, new training has a close connection. Later, the “Four New” construction began to move to the paradigm reform based on the early mode exploration, which has become a landmark measure leading the reform and innovation of China’s higher education. In April 2019, the Ministry of Education held the launch conference of “Six Excellence and One Top-notch” Plan 2.0 in Tianjin University, which officially launched the construction of new engineering, new medical science, new agricultural science and new liberal arts.

The People’s Police University of China took the lead in establishing the School of Public Security Political Science in the national public security colleges and universities, and held the first public security political work specialty, bearing the responsibility of cultivating professionals in political work. In 2020, it was selected as the construction point of first-class undergraduate majors in Hebei Province, planning clear construction objectives, construction paths and key points, which resonates with the professional reform and innovation from the perspective of new liberal arts construction. The construction of the new liberal arts focuses on innovation, integration and opening up. The professional talent training mode of public security political work specialty, based on the existing traditional liberal arts, reorganizes the courses of various disciplines to form the intersection of liberal arts and sciences, to provide students with comprehensive interdisciplinary learning, and to achieve the cultivation of knowledge expansion and innovative thinking. Only by breaking through the barriers between disciplines and promoting the deep integration of public security political work specialty can it meet the needs of compound talents in public security. Mathematics plays an indispensable role in the development of natural science, but also vigorously promotes the progress of the humanities. The application of mathematics in public security political work specialty is a method of quantitative analysis of objective phenomena and revealing the internal connection of things and the law of movement in the form of mathematics.

2. The significance and application of liberal arts higher education to public security political work specialty

To observe the world with mathematical eyes, describe the problem with the language of mathematics, analyze the law of quantity, and obtain the understanding of the nature of the problem is the most fundamental method for Marxism to understand the world and transform the world, and is the basic philosophical thought ^[1] of Marxism from qualitative — quantitative — qualitative understanding of things. "New liberal arts" is to integrate modern information technology into philosophy, literature, language and other traditional liberal arts courses, to carry out the intersection of liberal arts and sciences, to provide students with comprehensive interdisciplinary learning, to achieve the cultivation of knowledge expansion and innovative thinking. The "new" of the new liberal arts is relative to the traditional liberal arts. Traditional liberal arts attach great importance to professional training, and the professional division of majors is obvious, and the task of discipline construction is clear. However, it is difficult to acquire talent training, and it is easy to form professional barriers and restrict the comprehensive development of talents. As a compulsory basic course of the public security political work specialty, the liberal arts higher mathematics plays a pivotal role in the public security political work specialty in terms of mathematical thinking training, mathematical knowledge ability and mathematical spiritual accomplishment. Political work is an important branch of social applied science. Objectively evaluating the role and influence of mathematical methods in the study of political work has important theoretical and practical significance for promoting the discipline and scientization of political work ^[2].

Advanced mathematics in liberal arts mainly includes statistics, linear algebra and probability statistics, which have the following roles in public security politics majors, especially after their work.^[3] Statistics has been widely used in public security political work specialty. Performance in the crime data analysis, social mentality analysis, police performance evaluation and police performance evaluation. Application of linear algebra in public security undertakings^[4] linear algebra plays a pivotal role in public security political work specialty. Performance in fingerprint recognition, video surveillance, face recognition and network security. Application of probability theory in public security^[5] In the public security political work specialty, probability theory and mathematical statistics also play an indispensable role in crime prediction, criminal cases detection and criminal judicial judgment.

3. Advantages of learning liberal arts, higher mathematics and political work from the perspective of new liberal arts

Based on the advantages of linear planning, it can be used to optimize counter-terrorism decisions, including the deployment of counter-terrorism funds, resources and personnel. By solving this linear planning problem, the optimal anti-terrorism deployment scheme can be determined, so as to maximize the effect of combating terrorism. Data mining is widely used in ensuring national security, which can help law enforcement agencies analyze and predict criminal, terrorist activities, cyber attacks and other threats, and can provide effective response measures.

In addition, there are many cases of big data and cloud computing in public security management. "We should take big data as the big engine to promote the innovation and development of public security work, cultivate combat effectiveness to generate new growth points, and comprehensively boost the reform of the quality, big data analysis technology can be used to analyze and predict the factors affecting public safety, such as criminal acts, terrorist activities, traffic accidents and other events, so as to take timely measures to prevent and combat them. In the public safety management, cloud computing technology can be used to establish various intelligent data processing systems, such as video surveillance system, face recognition system, voice recognition system, etc. These systems can help law enforcement agencies process massive amounts of data and automate their analysis to optimize the efficiency and quality of law enforcement. In the management of public safety, smart cities can realize the prevention and emergency treatment of public security problems through statistical analysis of all kinds of data (such as meteorology, transportation, population, environment, public facilities, etc.). And everything under the Internet wisdom traffic development rapidly, in the system, the use of information technology, data communication transmission technology, electronic sensing technology, satellite navigation and positioning technology, electronic control technology, computer processing technology and traffic engineering technology, etc., and the series of technology effectively integration, applied to the whole transportation management system, people, car, road, to achieve harmony, synergy, greatly improve the efficiency of transportation, ensure the traffic safety, improve the transportation environment, improve the energy efficiency.

4. Conclusion

Under the background of new liberal arts, in order to better run the public security political work specialty well, constantly

improve the quality of training students, so that they can give full play to their talents in the public security work, liberal arts higher mathematics will play an irreplaceable role. First of all, the study of higher mathematics itself cultivates their logical, rigorous and responsible attitude, which will directly affect and form their work style of logical rethinking. Secondly, the rapid development of data, cloud computing, Internet of Things and artificial intelligence has put forward higher requirements for police officers, and the study of liberal arts and higher mathematics provides a foundation for liberal arts students majoring in public security politics specialty to continue to study after work. Finally, according to the concept of OBE, we should reverse design the teaching content of liberal mathematics in the major of public security political work specialty according to the actual needs of graduates, so as to better meet the career needs of graduates.

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