

# The Analysis on the Way of Integrating the Ideological and Political Education into the Teaching Mode of Higher Mathematics Courses

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Abstract: Under the background of quality education, it not only emphasizes training more professional and technical talents, improving their knowledge and practical skills, but also paying attention to the moral, intellectual, physical, aesthetic and labor aspects to improve the overall quality of college students. Therefore, the integration of ideological and political courses into relevant courses of teaching practice is an issue that is being actively explored and practiced in colleges and universities at present. In terms of the integration of the ideological and political education and higher mathematics courses, it is also of great significance. This paper mainly introduces the positive function of the integration of the ideological and political education into higher mathematics courses and explores the effective countermeasures of the integration of the ideological and political education into higher mathematics teaching.

*Keywords:* Ideological And Political Teaching; Higher Mathematics; Curriculum Integration; The Ideological And Political Education Courses

At present, the curriculum of the ideological and political education is being further advanced. There are also many ideological and political teaching points in the teaching of higher mathematics. Strengthening the integration of higher mathematics and the ideological and political education is of great significance to effectively improve the teaching quality of the ideological and political education and promote the comprehensive quality of students.

# 1. The significance of the integration of the ideological and political education into higher mathematics teaching

## 1.1 It is beneficial to help students develop the ability to analyze and solve problems with mathematical knowledge

The integration of the ideological and political education into higher mathematics teaching can make college students better combine the knowledge of higher mathematics with the actual life. In the corresponding learning of higher mathematics, connecting to the practice and better understand some problems and phenomena in life can help them treat people and things from scientific mathematical perspective in the future life and work. For example, in the learning of the function extreme value and the most value concept, there are some individuals and units in life whose aim in nature is to achieve a sense of strategic targets. Of course, maximization is the most ideal and the extreme value is also the goal they want to pursue, but in life, Which ones are extreme value or maximum? What does it take to achieve such extreme value and maximum? Through the guidance step by step, it can make students understand a certain truth and better analyze and deal with relevant problems and difficulties in the future.

### 1.2 It is beneficial to cultivate students' good qualities and exert a positive effect on their lifelong development

In the study of higher mathematics, a lot of mathematical principles and theories are all inspirational and

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enlightening. When students learn the related knowledge, at the same time, strengthening the integration of the ideological and political education into teaching can let students obtain deeper inspiration and promote the cultivation of students' good qualities, which has a positive effect on the lifelong development of students. A lot of things can play a positive role in students' development in the future. For example, when explaining "the extreme value and the maximum value of the function", it vividly tells the students that people will encounter all kinds of prosperity and adversity in their life (maximum value and minimum value), but as long as they are not arrogant in victory or depressed in failure, they will surely achieve one success after another in life. Through the continuous infiltration of these contents and thoughts of the ideological and political education in the teaching of higher mathematics, it can make students not to withdraw or give up when they encounter the corresponding learning difficulties and actively explore and make progress to achieve better development.

### 2. The effective practical countermeasures to integrate the ideological and political thoughts into higher mathematics teaching

### 2.1 Excavate the ideological and political content in higher mathematics and promote the deep excavation of the thought and value

In the development of higher mathematics curriculum teaching, it is necessary to strengthen the integration of the relevant ideological and political education and to deeply excavate the courses to search for the ideological and political content in higher mathematics courses and establish an effective integration path between higher mathematics and ideological and political courses. As the teacher of higher mathematics, it is demanding to make it clear that it often carries a certain value target behind the natural science. The value target is embodied in a professional spirit of the professional group in a professional field, such as "mathematics talents" "space talents" "water conservancy talents" "the weather talents", etc. Integrating the spirit into the course teaching and learning can let students experience the home countries feelings, scientific thinking and humanistic spirit in the subjects and in the development of majors, enhancing students' sense of mission. In higher mathematics teaching, only when the teacher grasps the existing higher mathematics textbooks and deeply excavate the connotation and ideological value of corresponding knowledge in higher mathematics can they build the bridge of the integration of the ideological and political education for higher mathematics, so as to be able to introduce the ideological and political education into higher mathematics teaching, promoting the deep cultivation target of higher mathematics. For example, in the calculation method courses teaching, teachers should regard "mathematics has a long history in China, and gains a great achievement" as the breakthrough point of "the ideological and political education" and integrate and reflect the achievements of our country's ancient people, contemporary people and ordinary people in the process of curriculum teaching. For example, in higher mathematics teaching, it involves "the Chinese remainder theorem" invented by the mathematician Qin Jiushao in Southern Song Dynasty. Teachers can impart the important thoughts and methodology of relevant mathematicians to the students, letting them constantly cultivate interests, deeply explore and excavate, enhance independent research ability in learning, at the same time, in the ancients' great ideas and achievements of research methodology, they can gain their own inspiration and understanding, so as to actively explore and study, spread the traditional excellent culture, express the national feelings and cultivate patriotic enthusiasm. In fact, there are many ideological and political teaching points in higher mathematics courses. As long as the course teachers dig deeply, they can find these teaching points, which provides effective reference and guidance for the ideological and political teaching of higher mathematics.

Only closely keep the pace of the time, closely combine the requirements of the ideological and political education curriculum with the subject's professional background and the course content and guarantee the teaching tasks in the classroom at the same time can softly integrate the cultivation of scientific spirits, home countries' feelings, sense of mission, sense of crisis and dialectical thinking and other ideological elements into higher mathematics class teaching with the discourse system of the new era, which promotes students' comprehensive quality and the core literacy of higher mathematics.

#### 2.2 Attach Importance to the connection of the theory and the practice and search for the

#### truth in exploration

In the teaching of higher mathematics, teachers of relevant courses should strengthen the integration of the ideological and political education and actively organize and carry out relevant practical activities for students. In actual teaching, the teacher can organize relevant practical activities of higher mathematics as much as possible for students, design relevant stories of higher mathematics knowledge, letting the students summarize the important higher mathematics knowledge around relevant stories. They also can encourage students to design relevant ideological and political stories with the corresponding higher mathematics knowledge and organize similar competitions to inspire students' active learning of the ideological and political education in higher mathematics, perfectly combine the ideological and political education and higher mathematics and truly carry out exploration in practice. Students participate in these activities based on a certain ideological and political education, which allows students to link the theory with the practice and their higher mathematics literacy as well as their ideological and political literacy can be improved at the same time. In addition, they can organize the student to carry out the public welfare activities of higher mathematics practice teaching, arrange relevant students to carry out the compulsory teaching and public welfare activities at the grass-roots level. In this way, students can further strengthen the consciousness of responsibility and sense of mission and get more education inspiration in practice, which is of great significance for their growth and development in the future.

In conclusion: Carrying out the integration of the ideological and political education into higher mathematics teaching is of great significance for the quality promotion of current talents training. In the concrete teaching of higher mathematics, the teacher must grasp the basic requirements of the ideological and political education and goals of talents cultivation of higher mathematics teaching, actively strengthen curriculum integration, pay attention to the excavation and exploration of courses, promote the effectiveness of the integration and infiltration of the ideological and political education into higher mathematics teaching, promote the students' growth development and meet the needs of quality education.

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