

# On the Construction of Curriculum Ideological and Political Education of Mathematics Courses

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## Abstract

**This paper discusses how to introduce the ideological and political education into the mathematics courses of Communication University of Zhejiang, so as to guide students to establish a correct outlook on life and values.**

## Keywords

**Mathematics courses, Curriculum ideological, Political education.**

## 1. Introduction

The implementation outline of the project of improving the quality of Ideological and political work in Colleges and universities (hereinafter referred to as the implementation outline) emphasizes that in the construction of the "top ten" education system, the primary task is to improve the quality of curriculum education system. Requirements: vigorously promote the classroom teaching reform with the goal of "curriculum ideological and political education", optimize the curriculum, revise professional teaching materials, improve teaching design, strengthen teaching management, sort out the ideological and political education elements and functions contained in various professional courses, integrate into all aspects of classroom teaching, and realize the organic integration of Ideological and political education and knowledge system education [1].

The main content of the implementation program is to promote curriculum education as a whole [2]. Requirements: to further promote the new socialist ideology with China's characteristics into teaching materials, into the classroom and into the mind, and fully tap and apply the elements of Ideological and political education contained in various courses, as the necessary chapters of teaching materials, lectures, important contents and key knowledge of student assessment. The key points of the Higher Education Department of the Ministry of education in 2019 also emphasize the need to strengthen the construction of "curriculum ideological and political" teachers, and build a "Ideological and Political Curriculum plus curriculum ideological and political" education pattern [3]. Therefore, it is of great and urgent significance to excavate and apply the ideological and political elements in the mathematics curriculum group of Zhejiang Media University, and integrate the ideological and political education into the teaching, so as to realize the unity of Ideological and political education and knowledge system education [4].

The teaching mode of mathematics courses in our school is generally that teachers first talk about definitions and theorems in class, then explain examples, and finally assign assignments. The basic goal of the course is to enable students to learn basic problem-solving methods and have the necessary mathematical thinking ability through explanation. The factors of Ideological and political education in the curriculum have not been developed, which are embodied in the following two aspects

1. Teachers's ideological preparation is insufficient: university mathematics teachers are rigorous and progressive in their academic research. Through the explanation of the definition of theorems and examples, students can fully learn mathematics knowledge. In the process of classroom explanation, they do not realize when to intervene in Ideological and political factors and the importance of Ideological and political elements in classroom teaching. College mathematics courses are generally compact, each section requires a lot of explanation and practice, and there is not much space for special ideological and political education. Most teachers also think that ideological and political education should be strengthened in liberal arts courses, and it is not necessary to strengthen ideological and political education in natural science courses.

2. Students's lack of ideological preparation: at the beginning of college, students mainly focused on College English, college computer, college mathematics and other public courses. Courses related to ideological and political education were more used to cramming before exams and reciting key points. They generally think that the ideological and political courses represent the ideological and political education, and hardly realize the necessity of Ideological and political education in other courses.

Considering that mathematics courses as public basic courses have a wide range of contacts and great influence, if we can do a good job of Ideological and political education in such courses, we will get twice the result with half the effort. Therefore, how to summarize the ideological and political cases in mathematics courses of Zhejiang Media University and introduce ideological and political education needs to spend a lot of efforts to study, learn, refine and practice.

## 2. Implementation Plan

### 2.1. Some problems to be solved

#### 2.1.1. Reform Contents

By combing the important elements of "probability, algebra" and "moral education" in the teaching process, we should integrate the important elements of "mathematics, algebra" and "moral education" How to integrate the socialist core values, the basic principles and requirements of life, work and learning into the teaching of the course. Research on the teaching design of "course ideology and politics" in mathematics courses

To study and expand the ideological and political elements of mathematics courses, guide the ideological value through the whole process of education and teaching, such as curriculum plan, curriculum standard, teaching plan, lesson preparation and teaching evaluation, and guide students to use the theoretical knowledge to solve practical problems, so that students can deepen their understanding, enhance their perception and exercise their growth in practice. Deeply explore the educational function of mathematics courses.

#### 2.1.2. Reform objectives

We should deeply explore the ideological and political elements of mathematics courses, strive to put the ideological and political education through the whole process of education and teaching, and organically integrate knowledge teaching, ability training and value guidance into each mathematics course.

#### 2.1.3. The key problems

At present, there is still a blank in the teaching design of the ideological and political education of mathematics courses in Zhejiang Province, and it is urgent to invest in research and operation; At present, the teaching cases of Ideological and political education in Zhejiang mathematics courses are still blank, which need to be explored and refined; The problem of Ideological and political preparation of mathematics courses in Zhejiang province needs to be explained and

publicized, and the consciousness of "moral education in all courses, and education in all teachers" needs to be deeply rooted in every mathematics teacher's heart.

## **2.2. Implementation plan and method**

### **2.2.1. Implementation plan**

To unify the thinking of mathematics teachers and make them realize the necessity and urgency of "curriculum ideological and political" in mathematics courses. In order to excavate the ideological and political elements of the course as the starting point, fully demonstrate, in-depth explore, and strive to achieve moral education, everyone talks about educating people. With the course Ideological and political teaching design as the carrier, the content of Ideological and political course is discussed and enriched.

### **2.2.2. Implementation method**

To organize teachers to discuss, we must accept the understanding that mathematics courses can and must be established ideologically. It includes some teachers in charge of advanced mathematics, somebody else in charge of linear algebra, some body in charge of probability theory, and someone as supplements. Discussion teaching design table, rich ideological and political content. Carry out ideological and political education in mathematics courses, strive to apply ideological and political education in mathematics courses, and provide reference for other professional courses.

### **2.2.3. Annual progress**

January June 2020: College research, learn from successful experience, participate in the necessary training. Unify teachers's thinking and understanding, and sort out, classify and classify the course contents, so as to fully tap the moral elements contained in professional knowledge.

July - December 2020: Complete most of the "Ideological and political course" teaching design table of the three courses, enrich the ideological and political materials of the course, and make a preliminary attempt.

January June 2021: Fully investigate the research results of Ideological and political education of mathematics courses in other universities, further enrich the content of Ideological and political education, improve the teaching design table, and write articles for discussion.

July December 2021: Write the final report, summarize the experience again, and provide reference for other professional courses.

### **2.2.4. Feasibility analysis**

In October 2019, the school officially launched the implementation plan (discussion draft) on further promoting the construction of "curriculum ideological and political education", which clearly requires that all members of the curriculum ideological and political education should be covered, and that "there is moral education in the curriculum, and all teachers should educate people", which makes the curriculum ideological and political education not an option, but a must.

Mathematics teachers in our school have a strong sense of honor and responsibility, good teaching style and ethics. They are at the forefront of all teaching evaluation and can undertake the task of Ideological and political education.

Mathematics teachers in our school are closely connected with colleges and universities in our province, so they can learn from each other and contribute to the ideological and political education of mathematics courses.

To sum up, it is feasible and feasible to carry out "curriculum ideological and political education" in our school.

## 2.3. Expected achievements and effects of the project

### 2.3.1. The expected results and effects

Form a wealth of Ideological and political cases, with a perfect curriculum design table of Ideological and political teaching; Published one or two articles on the teaching reform of Ideological and political education in mathematics courses. Mathematics teachers form a consensus in the teaching process, carry out the ideological and political curriculum, and radiate the majority of professional teachers.

### 2.3.2. Implementation scope

All the mathematics teachers in our university, and all the freshmen and sophomores in the College of Media Engineering, economics students, cultural industry management students and recording students, can influence the relevant students through the second classroom.

There are 1100 freshmen and sophomores in the school of Media Engineering, 80 students in economics, 80 students in recording and the cultural industry management students 30 people a year.

## 2.4. Features and innovations of the project

Considering the art nature of the school, this project is the first time to consider the ideological and political research in the mathematics courses of CUZ. It takes full consideration from the change of teachers's thinking to the specific teaching design, and has the dual characteristics of Ideological and political education of public basic courses plus Ideological and political education of Engineering

Innovation plus teacher, ideological and political plus curriculum, ideological and political plus student. It is to excavate the "Ideological and political" factors from the public basic courses of engineering and construct the ideological and political education system.

## 3. Plan Basis of teaching reform

The applicant has been undertaking the teaching task of public basic courses of mathematics, and has close contact with Zhejiang University of science and technology, and Zhejiang agriculture and Forestry University, often discussing the ideological and political research of related courses.

In 2019, we began to collect the ideological and political elements in the higher mathematics curriculum and publicize them among the students. For example, introducing the establishment of any mathematical nature in the content of limit should be verified repeatedly and linked to the development process of the Communist Party in China.

Since then, we have accepted two papers on education reform, which has been published in 2020.

The foundation and environment of teaching reform that the school already has are as follows: CUZ has always adhered to the concept of Ideological and political course, and repeatedly stressed the establishment of Ideological and political project in the conventional teaching reform. As early as 2013, CUZ launched the "integration of in and out of class" teaching reform of Ideological and political course. In 2017, Zhejiang Online has broadcast our open course of Ideological and political education. In May 2019, the people's network also carried out extensive publicity on the ideological and political education of our school. These fully show that our school has rich soil of Ideological and political research.

In October 2019, the school issued the implementation plan on further promoting the construction of "curriculum ideological and political education", which further guaranteed and required the curriculum ideological and political education from the system.

So far, most of the ideological and political courses in our school are implemented in the ideological and political courses themselves or in the literature and art courses, and have not been widely carried out in the public basic courses of engineering. This short board needs to be supplemented and improved urgently.

#### 4. Conclusion

we discuss how to add the ideological and political education into the university mathematics curriculum, how to decompose the curriculum and carry out the planning and construction, and how to ensure the curriculum effect through some implementation. Through the implementation of a period of time, we have achieved a good effect.

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