

Economic Mathematics” Based on Curriculum Thinking— —A First Look at Teaching Reform

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Abstract: As a public basic course, Economic Mathematics is an important tool for studying economic management and a foundation for students to learn related professional knowledge. However, the course content of Economic Mathematics is abstract and difficult to learn, and students have strong rejection to the learning of the subject. In this paper, we discuss the ideas of teaching reform of the course “Economic Mathematics” from three aspects of teaching content, teaching methods and students’ evaluation in the context of curriculum thinking and administration.

Keywords: Economic mathematics; Curriculum thinking; Teaching reform; Student evaluation

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Economic Mathematics” is a compulsory public foundation course for students of economics and management majors and similar majors in higher education institutions, which is an important tool for studying economic management and an important foundation for students to learn the relevant professional knowledge of economics and management. However, students generally think that Economic Mathematics is an abstract and difficult course to learn, they can not get interested in learning, and they do not have a correct understanding of the status and role of Economic Mathematics course, and even breed the view that “mathematics is useless”. In order to help students understand the course properly, enhance students’ interest in learning, and improve the current situation of students learning Economic Mathematics, this paper will discuss the reform ideas from three aspects, such as teaching content, teaching methods and students’ evaluation.

1. Problems in teaching the course of “Economic Mathematics

Economic Mathematics is a purely theoretical course, and the teachers’ teaching is mainly based on classroom teaching with the aid of multimedia. Teachers’ teaching methods are relatively single, and students with weak foundation find it difficult to understand and master the abstract teaching contents. . At the same time, the communication between teachers and students in higher education institutions is insufficient, and the teaching is prone to the phenomenon that teachers finish teaching, that is, students learn, which cannot fundamentally ensure that students master the relevant knowledge points. In addition, because Economic Mathematics, as a basic subject, does not directly reflect its applicability in the future work of economic management expertise, leading students to think that there is no meaning in learning this course of Economic Mathematics.

2. Problems in the construction of Civics in the course of “Economic Mathematics

For teachers, the process of construction of course Civics is easy to pay attention to the teaching of theoretical content, moral education objectives are not clear; course Civics content and knowledge lecture content is not balanced, the course Civics entrance and entry way articulation is not enough, Civics teaching integration way tough, can not get The effect of “embellishment and silent”, at the same time, the course Civics teaching case knowledge is old, lack of vivid cases, lack of up-to-date features, can not stimulate students’ participation and learning enthusiasm. In addition, the course assessment is traditionalized, and too much importance is

attached to the assessment of course knowledge content. These problems affect students' interest in learning to a certain extent, and also affect the effect that knowledge education and moral education should achieve.

3. Teaching Reform of Economic Mathematics Course

The course of Economic Mathematics is characterized by abstract content, strong theoreticality, great difficulty and insignificant practical application. Therefore, it is difficult for both teachers to teach and students to learn, which is a common problem encountered by higher vocational institutions in teaching this course for many years.

3.1 Teaching content reform exploration

The course of "Economic Mathematics" takes economic application as the standard, but the teaching content really involves the economic application module deviates from the professional knowledge of economics, accounting, management, etc. There is a problem that students can't really apply to solve the professional courses of economics, accounting, management, etc. after learning the content of "Economic Mathematics" course. In the process of learning professional courses, students do not know how to transform the knowledge of "economic mathematics" into the mathematical knowledge required for professional courses. In addition, most of the existing economic mathematics textbooks focus on the theoretical knowledge of mathematics, and the economic application module is not well connected with the knowledge of professional courses.

Therefore, teachers should not only improve their teaching ability of theoretical knowledge of higher mathematics, but also actively study the professional knowledge of economic management, and effectively explore the application module of mathematics in the professional knowledge of economic management. The application of mathematics in economic management will not only help students to learn theoretical knowledge of mathematics, but also help them to combine theoretical knowledge with professional knowledge, so as to achieve the purpose of applying mathematics to their studies.

3.2 Exploration of teaching method reform

In the teaching process, the teaching of theoretical knowledge is often boring, students will be bored and abandoned in learning, the urgent need for "economic mathematics" course teaching reform.

First of all, teachers should actively learn advanced education concepts, update the teaching mode, take advantage of the era of big data and the "Internet+" era, and make use of online teaching resources to optimize teaching. The integration of practical applications in life, economic and management-related professional applications, mathematical culture and other political elements in the mathematics course will make the mathematics class more interesting, more energetic, learnable and valuable.

For example, the application of derivatives helps students understand the concepts of marginal revenue, marginal cost, marginal profit and elasticity function in economics with the help of the meaning of derivatives, add some practical application problems of economics in the classroom, make a friendly connection from mathematics to economics, and let students learn to apply mathematical knowledge to solve economics problems.

Secondly, teachers should actively explore the relevance of mathematical theoretical knowledge and related software, combine the teaching of mathematical software in classroom teaching, transform the abstract purely theoretical teaching classroom into a classroom combining theory and practical operation, effectively enhance students' learning interest and establish the concept of the usefulness of mathematics. For example, the content of integration can be introduced into MATLAB and other mathematical software to assist in the calculation of integration, statistics content can be introduced into EXCEL, SPSS and other statistical software to assist in teaching, fully reflect the practicality of mathematics classroom teaching content, break the traditional fill-in-the-blank teaching classroom, students use the computer to actually operate, enhance the participation rate of students in the classroom, so that students join the learning with the role of the master. Realize the effective interaction between teaching and learning, and also fundamentally promote students' enthusiasm in learning the course of "Economic Mathematics".

Finally, teachers should actively explore the second classroom teaching mode. The second classroom teaching mode is a supplement to the traditional teaching classroom. The second classroom teaching activities are not restricted by time and space, and the activities are colorful and diverse, through which students can obtain more new knowledge, new technology and new information, and to a certain extent, students are guided out of the boring theoretical classroom and go to the actual activities to feel

the application of mathematics. In addition, teachers should improve their own professional ability, study various competitions related to mathematics, and actively guide college students to participate in the national college students' mathematical modeling competition and mathematical application ability competition, so as to promote teaching and learning with competitions, and guide students to actively learn mathematical knowledge with various competitions, and use mathematical knowledge to explore and study science and technology, and improve students' practical application ability.

3.3 Student Assessment Reform

The traditional way of student evaluation is based on examinations, which mainly assesses students' mastery of theoretical knowledge and also increases students' fear of mathematics. In the traditional student evaluation, students' overall learning performance = 30% of the regular grade + 30% of the midterm grade + 40% of the final grade. Combined with the reform of teaching content and teaching methods, the evaluation of students is adjusted to 20% of students' comprehensive learning results = 20% of regular grades + 30% of midterm grades + 30% of final grades + 20% of comprehensive application grades, the midterm and final exam results are still examined in the traditional way, the regular grades include the quantification of students' attendance, homework, classroom performance and other comprehensive situations, and the comprehensive application grades are the results of expanding mathematics knowledge modules. The integrated application grades are the quantitative grades of the learning, such as students' understanding of mathematical culture, their ability to use mathematical software to solve mathematical problems, their ability to use mathematical knowledge to solve certain professional problems, and their participation in second classroom activities. This evaluation method can weaken the proportion of assessment of theoretical knowledge, increase the comprehensive application ability module, effectively promote students to actively explore the practical application of mathematics, actively participate in teaching classroom and extracurricular activities, and help students to build up confidence in learning Economic Mathematics.

Combined with the reform of three aspects of the course content, teaching methods and student evaluation of "Economic Mathematics", we integrate life application, professional application and mathematical culture and other thinking elements in the classroom, and change the purely theoretical class into an application-oriented class, a practical class and a class for the guidance of correct values that students like, so as to stimulate students' learning interest, increase their learning participation rate, improve classroom teaching efficiency and improve their learning status This is also the original purpose of the teaching reform and the effect it should achieve.

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