

# Discussion on the Effective Teaching Methods of "Financial Engineering" Under the Open Education Mode

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**Abstract:** This article takes the "Financial Engineering" course as the research object, analyzes the characteristics of its disciplines and the characteristics of open education students, and proposes effective methods for implementing the course teaching for reference.

Keywords: Open Education Model; Financial Engineering; Course Teaching; Method

"Financial Engineering" is the core course of finance majors, and its marginal and cutting—edge features are more prominent. Under the open education model, if the traditional classroom teaching method is adopted, it is difficult to achieve a good teaching effect. Therefore, it is necessary to carry out curriculum teaching reform in accordance with the actual learning needs of students and other aspects.

# 1. Disciplinary characteristics of "Financial Engineering" and characteristics of open education students

### 1.1 Disciplinary characteristics

"Financial Engineering" is a course in the development stage, and many scholars have given different views on the characteristics of this course. Some scholars believe that financial engineering is the use of financial tools to reconstruct the existing financial environment so that it has expected characteristics. The development of this discipline integrates many disciplines such as finance and engineering, and other disciplines continue to join, so that it has strong marginal characteristics.

"Financial Engineering" is a discipline that combines finance and engineering theories, and also absorbs the essence of other disciplines such as physics. In financial engineering, some attributes of financial products are divided and reorganized with the help of engineering principles to realize their innovative development. It represents the new development direction of finance and has frontier characteristics.

Financial engineering is slowly produced in the process of management and control of financial risks by industry personnel. Therefore, it has practical characteristics since its appearance, and continues to innovate with the development and progress of the times. Financial engineering has been effectively applied in mathematics, or the expression of the environment in mathematical language, with high professional requirements and strong practicability.

### 1.2 Characteristics of open education students

The professional background is more complicated. Although, for most of the students who have chosen this

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course, they have the corresponding financial background, but due to the difference in the position, it involves many professional types and the professional background is more complicated. There are also great differences in the strengths and weaknesses of students from various professional backgrounds in the course of learning. Students with a background in science are more capable in mathematics. They have a stronger understanding of the pricing process in the "Financial Engineering" course, such as futures and options pricing. However, due to insufficient knowledge of relevant financial theories. The ability to understand the application principles of the supporting tools is poor. Students with a financial background can use financial tools proficiently, but their mathematical foundation is weak, and it is difficult to keep up with the teacher's lecture progress when learning about pricing principles and other knowledge.

Have a wealth of practical experience. Under the background of open education, the students of the "Financial Engineering" course are generally older and their memory is not that strong, but most of them come from a certain position in the financial industry, and they have rich practical experience. In particular, I have a unique knowledge and understanding of a position I am familiar with. In addition, with their rich life experience and strong thinking ability, they have obvious advantages in studying the "Financial Engineering" course.

Learning motivation presents diverse characteristics. Open students have multiple roles in society, and they also present diverse characteristics in learning motivation. Some people realize that they have low academic qualifications and lack of theoretical knowledge in their work, and in order to improve their working ability and level, they are urged to study "Financial Engineering" courses; Some people themselves are to figure out certain aspects of the problem. Learning, they hope that through learning, they can solve the problems they face at work. Therefore, the learning process of this part of the students is more targeted; And some people learn for the purpose of mixing diplomas. This part of the students did not show obvious advantages in learning, and their learning attitude was not correct. A fluke psychology. The difference in motivation has resulted in diversified learning attitudes among students. For the "Financial Engineering" course, it is impossible to learn well without a clear learning goal.

Strong thirst for knowledge, but relatively little learning time. Most of the open students have He Enqiang's sthirst for knowledge, which laid the foundation for the smooth development of the course teaching. However, due to the influence of various factors such as their position and family, they do not have a long time to study. The course of "Financial Engineering" covers a lot of content, and it is difficult to get a good brother to survive without enough time to study and study. This requires students to overcome interference from all aspects and make good use of learning time.

# 2. Analysis of the method of effectively carrying out the teaching of "Financial Engineering" under the open education mode

# 2. 1 Select the teaching materials and formulate the syllabus

Under the open education model, the complex backgrounds of different students make the selection of teaching materials more important. Judging from the current situation of the textbook market, there are many textbooks compiled by domestic scholars, but the content of textbooks suitable for teaching must reflect the core content of financial engineering and adapt to the characteristics of open students' complex professional backgrounds. Therefore, the content of the textbook should be systematic, lean, theoretical and practical to meet the diverse learning needs of each student. At the same time, the textbook should also reflect the latest achievements of the "Financial Engineering" course, especially some new financial tools must be covered. In the face of open students from different positions, it is not so easy to find suitable teaching materials. We also need to start with the syllabus, reduce the difficulty of some unsuitable content in the teaching materials, and add some content that is conducive to learning.

# 2. 2 Comprehensive utilization of multiple teaching resources to ensure the effectiveness of classroom teaching

Open students have a good learning foundation, such as computers, mobile phones and other modern equipment, they can learn online anytime, anywhere. To ensure the effectiveness of classroom teaching, it is

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also necessary for schools to provide a variety of teaching resources, and to plan and arrange scientifically. Schools should increase investment in resource construction, ensure that the quality and quantity of various resources meet the standards, and build a variety of teaching resource libraries. In the construction of resources, the important and difficult points should be highlighted, and the usability should be strong, so that students can complete school tasks even using only one resource. At the same time, it is necessary to support online access, browsing, and downloading of various resources, and to incorporate the resources into the teaching planning management system. Especially when implementing teaching, detailed arrangements must be made so that students can effectively use resources.

### 2.3 Cultivate learning interest and improve self—learning ability

The "Financial Engineering" course involves a lot of professional knowledge, and it is a course that takes a lot of time to conduct systematic research, but the classroom learning time is very limited. This requires students to make effective use of all available time to think and explore topics related to the course content. To allow students to think about the knowledge of financial engineering during the break time, it is not enough to just assign some classroom tasks, but to mobilize the students' interest in learning. And how to mobilize students' interest in learning? This requires teachers to guide students to use financial tools and knowledge to solve practical problems in the teaching process according to the actual needs of current financial activities, especially to master the exercises between the actual work positions of the students and the course learning.

## 3. Conclusion

All in all, in an open education environment, the teaching of "Financial Engineering" should be innovative. Teachers must have a comprehensive understanding of the characteristics of course learning and the characteristics of students, and on this basis, update their own teaching methods and methods, select textbooks, and formulate syllabuses; Comprehensive use of multiple teaching resources to ensure classroom teaching Effectiveness; Cultivate interest in learning and enhance self—study ability to improve the quality and efficiency of course teaching.

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