

Research on the Cultivation of Financial Science and Technology Talents Based on Cross-Disciplinary Multi-Professional Integration

Ming Wang^{1,a,*}, Shuwen Jia^{1,b}, Tingting Yang^{2,c}

¹Education Office, University of Sanya, Sanya, China

²Institute of Information and Intelligence Engineering, University of Sanya, Sanya, China

^a510504263@qq.com, ^bjsw2006@163.com, ^cytt1202@126.com

*Corresponding author

Abstract: With the continuous development of fintech, the financial industry has a greater demand for cross -disciplinary and multi -professional integration talents. In this context, how to cultivate fintech talents with interdisciplinary and multi -professional integration capabilities have become a problem that needs to be solved urgently. This article starts with the setting of financial science and technology talent training courses with multi -disciplinary multi -disciplinary integration, and explains the knowledge goals, ability goals, and skill goals that require talent training, and discuss the effects and significance of talent training.

Keywords: Interdisciplinary, Multi -professional, Fusion, Talent training

1. Introduction

With the rapid development of fintech, the needs of the financial industry are no longer limited to talents in the traditional financial field, but cross -border talents with multi -disciplinary and multi -professional knowledge are needed. Financial technology talents need to have knowledge and skills in many fields such as finance, computer, data analysis, and artificial intelligence in order to play a role in the new financial industry. In addition, with the popularity of the Internet and mobile Internet, the form and method of financial services have also undergone tremendous changes. Financial technology talents need to have innovative thinking and keen insights, and can continuously adapt to and cope with changing financial markets and technical environments. Therefore, the cultivation of financial science and technology talents with multi -disciplinary disciplines has become an inevitable trend in the current financial industry. Major universities and training institutions have also opened financial technology -related majors and courses to meet the market's needs for fintech talents.

2. The Teaching Mode of Multi -Professional Integration of Interdisciplinary Disciplines

Cross -discipline multi -professional integration fintech talent training programs should adopt a diversified teaching model. Specifically, the following teaching mode should be adopted ^[1]:

2.1. Multi -Professional Cooperation Teaching of Interdisciplinary Disciplines

Students from different majors are combined to solve the problems of cross -disciplinary disciplines so that students can cross the interdisciplinary boundary and form a multi -professional integration ability.

2.2. Case -Style Teaching

The ability to analyze students and solve practical cases so that students can understand the ability of fintech to apply and solve practical problems.

2.3. Practice Teaching

Through internship, practice, project, etc., students can master the ability to apply and solve practical problems in practice in practice.

3. Cross -Disciplinary Multi -Professional Integration of Financial Curriculum Talent Training Curriculum Settings

Cultivation of financial science and technology talents with multi -disciplinary multi -disciplinary multi -professional integration should start with course settings. Specifically, according to the actual needs of the fintech industry, a series of cross -disciplinary multi -professional integration courses should be designed. From a more detailed aspect, the specific curriculum settings are as follows:

3.1. Financial basic courses

These courses include basic knowledge in financial markets, financial institutions, investment portfolios, and risk management, and establish basic concepts and knowledge in the financial field for students. According to the financial science and technology talent training plan of multi -disciplinary disciplines, the knowledge goals, ability goals and skill goals of financial basic courses may include the following content:

3.1.1. Foundation of Financial Basic Course Knowledge Goal

It can understand the basic concepts, structure and operation of financial markets; It can grasp the classification, functions and business scope of financial institutions; It can be familiar with the fundamentals of the portfolio, risk control and return characteristics; It understands the concepts, methods and tools of risk management.

3.1.2. Foundation of Financial Basic Course Ability Goal

It is able to analyze and solve real problems in financial markets; It is able to assess the risks and returns of financial products and portfolios; It is able to develop risk management strategies and measures.

3.1.3. Foundation of Financial Basic Course Skill Goal

It can master the methods and skills of financial market analysis and evaluation; Proficient in the use of financial tools and software for data analysis and risk management; It is able to write financial analysis reports and investment advice.

3.2. Data Analysis Course

These courses include data mining, machine learning, artificial intelligence and other aspects of knowledge to help students understand and apply various data analysis tools and technologies to better process and analyze financial data. According to the financial science and technology talent training plan of multi -disciplinary disciplines, the knowledge goals, ability goals and skill goals of data analysis courses may include the following:

3.2.1. Data Analysis Course Knowledge Goal

It can understand the basic concepts, methods and processes of data analysis; It can master knowledge in related fields such as data mining, machine learning and artificial intelligence; It is familiar with techniques and tools for data processing and data visualization.

3.2.2. Data Analysis Course Ability Goal

It is capable of collecting, collating and processing various types of data; It is able to apply data analysis tools and techniques to solve real-world problems; It enables evaluation and optimization of data analysis models and algorithms.

3.2.3. Data Analysis Course Skill goal

Proficient in the use of data analysis tools and software; It is able to visualize data and produce intuitive, easy-to-understand data reports; It is able to apply data analytics techniques to help businesses make business decisions.

3.3. Information Technology Courses

These courses include computer networks, database management, software development and other knowledge to help students master various information technology tools and technologies, so as to better apply to the financial field. According to the cultivation plan of financial science and technology talents with multi -disciplinary multi -disciplinary multi -professional integration, the knowledge goals, ability goals and skill goals of information technology courses may include the following:

3.3.1. Information Technology Courses Knowledge Goal

It can understand the basic concepts, protocols, and techniques of computer networks; It can master the principles and methods of database management and data structure; It is familiar with the process and methods of software development.

3.3.2. Information Technology Courses Ability Goal

It is capable of building and maintaining enterprise-level computer networks; It is able to design and manage database systems; It enables software development and system integration.

3.3.3. Information Technology Courses Skill Goal

It can master network configuration, server management and security skills; Proficient in SQL and other database management tools; It is capable of software development and programming, and is proficient in at least one programming language.

These knowledge, abilities and skills can help students better master information technology tools and technologies, so as to better apply to the financial field and improve work efficiency and accuracy.

3.4. Financial Technology Course

These courses include the knowledge of blockchain, artificial intelligence, and big data to help students understand and apply various financial technology tools and technologies to better promote the development of fintech. According to the cultivation plan of financial science and technology talents with multi -discipline multi -disciplinary multi -professional integration, the knowledge goals, ability goals and skill goals of financial courses may include the following:

3.4.1. Financial Technology Course Knowledge Goal

It can understand the basic knowledge of financial markets and financial products, including the organization of financial markets, trading methods, market participants, etc. It can master cutting-edge technologies and applications in the field of financial technology, such as blockchain, big data, artificial intelligence, etc. It can understand the basic principles and rules of financial regulation and compliance, such as KYC, AML, etc. It can understand the basic theories and methods of financial risk management, such as risk assessment, risk control, etc.

3.4.2. Financial Technology Course Ability Goal

It is able to analyze and solve practical problems in the financial field, such as financial risk management, investment decisions, etc. It is proficient in the use of tools and technologies in the field of financial technology, such as blockchain technology, big data analysis, etc. It enables the design and innovation of financial products, such as digital currencies, smart contracts, etc. It can reasonably apply financial supervision and compliance knowledge to ensure the legitimacy and security of financial business.

3.4.3. Financial Technology Course Skill Goal

It is able to use fintech platforms for data analysis and decision support. It is able to use fintech technology for risk management and control. It is able to design and develop fintech products and services. It is capable of financial regulation and compliance operations and management.

3.5. Practical Courses

These courses include practical courses in financial practice, scientific and technological practice, etc. to help students apply the knowledge they have learned in practical situations to cultivate practical operations and solve problems. According to the financial science and technology talent training plan of

multi -disciplinary disciplines, the knowledge goals, ability goals and skill goals of practical courses may include the following:

3.5.1. Practical Courses Knowledge Goal

It can understand the practice cases and application scenarios in the field of financial technology, such as digital payment, robo-advisory, risk management, etc. It can master practical skills and tools in the field of fintech, such as data analysis, programming languages, artificial intelligence, etc. It can understand the practical operations and processes in the field of financial technology, such as financial transactions, risk control, etc. It can master the practical norms and standards in the field of financial technology, such as ISO20022, SWIFT, etc.

3.5.2. Practical Courses Ability Goal

It can analyze and solve practical problems in the field of financial technology, such as the security of digital payments and the accuracy of robo-advisors. It is proficient in applying practical skills and tools in the field of fintech, such as data analysis, programming languages, artificial intelligence, etc. It can carry out practical operations and processes in the field of financial technology, such as financial transactions, risk control, etc. It is able to comply with the norms and standards of practice in the field of fintech, such as ISO20022, SWIFT, etc.

3.5.3. Practical Courses Skill Goal

It can independently carry out practical projects in the field of financial technology, such as the development of digital payment systems and the optimization of robo-advisory algorithms. It can reasonably use practical skills and tools in the field of financial technology, such as data analysis, programming languages, artificial intelligence, etc., to complete practical tasks. It is proficient in the use of practical operations and processes in the field of financial technology, such as financial transactions, risk control, etc. It can comply with the norms and standards of practice in the field of financial technology, such as ISO20022, SWIFT, etc., to ensure the legitimacy and security of practical projects.

3.6. Interdisciplinary Courses

These courses include cross -disciplinary courses in law, economy, and management to help students understand and master the knowledge of other disciplines, so as to better understand the complexity and diversity of fintech in the field of fintech. According to the cultivation plan of financial science and technology talents with multi -disciplinary multi -disciplinary multi -professional integration, the knowledge goals, ability goals and skill goals of interdisciplinary courses may include the following:

3.6.1. Interdisciplinary Courses Knowledge Goal

It can understand the basic knowledge of multiple subject areas, such as finance, computer science, data science, statistics, economics, etc. It can understand the intersection and convergence of different disciplines, such as the combination of fintech, data science and artificial intelligence. It can grasp the cutting-edge theories and development trends in interdisciplinary fields, such as the application of blockchain technology and the methods of big data analysis. It can understand research methods and techniques in different subject areas, such as financial statistical analysis, machine learning algorithms, etc.

3.6.2. Interdisciplinary Courses Ability Goal

It can think interdisciplinarily and solve practical problems in interdisciplinary fields, such as the design and innovation of financial products, the assessment and control of financial risks, etc. It is proficient in the use of tools and techniques in different subject areas, such as financial statistical analysis, machine learning algorithms, blockchain technology, etc. It enables collaboration and communication in interdisciplinary fields, such as projects with professionals in finance, computer science, data science, statistics, economics, and more. It is able to analyze and evaluate the development trends and prospects of the fintech field from an interdisciplinary perspective.

3.6.3. Interdisciplinary Courses Skill Goal

It can design and develop innovative products and services in interdisciplinary fields, such as digital currencies, smart contracts, robo-advisors, etc. It can use technologies and methods in the field of interdisciplinary fields for data analysis and decision support, such as financial statistics analysis, machine learning algorithms, etc. It can carry out project management and coordination in the field of interdisciplinary fields, such as the organization and management of cross -disciplinary teams, and the

control of project progress. It can supervise and compliance in the field of fintech from the perspective of cross-disciplinary disciplines, such as the rules and standards in the fields of financial, computer science, data science, statistics, and economics to ensure the legality and security of financial business.

3.7. International Curriculum

These courses include knowledge in international finance and international trade to help students understand the operation of the international financial market and the rules of international trade, so as to better adapt to the global financial market. According to the cultivation plan for financial science and technology talents with multi-disciplinary multi-disciplinary multi-disciplinary, the knowledge goals, ability and skill goals of international courses may include the following:

3.7.1. International Curriculum Knowledge Goal

It can understand the basic knowledge of international financial markets, including the international monetary system, international financial institutions, etc. It can master the cutting-edge theories and development trends in the field of international finance, such as international financial regulation and international financial risk control. It can understand the financial markets and financial products of different countries and regions, such as the US stock market, the Chinese bond market, etc. It can be familiar with international financial institutions and international financial rules, such as IMF, WTO, etc.

3.7.2. International Curriculum Ability Goal

It can analyze and solve practical problems in the financial field from an international perspective, such as multinational investment and cross-border payment. Can be proficient in tools and technologies in the international financial field, such as international financial statistics analysis, international financial risk control, etc. Can cooperate and communicate in the international financial field, such as cooperating projects with international financial institutions and international enterprises. It can evaluate and respond to risks and challenges in the financial field from an international perspective, such as global economic uncertainty and changes in international financial supervision.

3.7.3. International Curriculum Skill Goal

It can design and develop financial products and services for international markets, such as investment products for international investors, payment products for overseas markets, etc. It can use technology and methods in the international financial field to perform data analysis and decision support, such as international financial statistics analysis and risk control models. It can carry out project management and coordination in the international financial sector, such as project management and coordination with international partners. It can make supervision and compliance in the field of fintech from an international perspective, such as complying with the rules and standards of international financial supervision to ensure the legality and security of international financial business. The above course settings can help students comprehensively master the knowledge and skills of fintech in the field of fintech, and cultivate the comprehensive ability of cross-disciplinary multi-majors, so as to better meet the needs of talent in the fintech industry.

4. The Implementation Effect of The Cultivation of Financial Science and Technology Talents With Multi-Disciplinary Disciplines

The implementation effect of cross-disciplinary multi-professional integration of financial science and technology talent training programs is mainly reflected in the following aspects [2]:

4.1. Cultivate Talents with Multi-Disciplinary Integration of Interdisciplinary Disciplines

The implementation of cross-disciplinary multi-professional integration of financial science and technology talent training programs enable students to cross the boundaries of the discipline, form a multi-professional integration ability, and cultivate talents with multi-disciplinary multi-professional integration.

4.2. Cultivate the Ability to Solve Practical Problems

The implementation of cross -disciplinary multi -professional integration of financial science and technology talent training programs enable students to master the ability to apply financial technology and solve practical problems through internship, practice, projects and other methods.

4.3. Cultivate Innovative Thinking and Leadership Ability

The implementation of cross -disciplinary multi -professional integration of financial science and technology talent training programs enable students to cultivate creative thinking and leadership ability through case -style teaching, cross -disciplinary multi -professional cooperative teaching. In summary, cross -disciplinary multi -professional integration fintech talent training model is an effective talent training model that can cultivate financial science and technology talents with interdisciplinary and multi -professional integration capabilities, solve the interdisciplinary, multi -professional integration talents of the financial industry, and multi -professional integration talents Shortage

5. The Meaning of Cultivating Cross -Disciplinary Multi -Professional Integration of Financial Science and Technology Talents

Cross -disciplinary multi -professional integration financial scientific and technological talents can better adapt to the rapid changes in the financial industry. With the development of fintech, the financial industry is undergoing huge changes, and talents with multi -disciplinary knowledge need to adapt and lead this change.

Through the cultivation of multi-disciplinary multi -professional integration to facilitate improvement of comprehensive literacy of fintech talents. Financial and technological talents with multi -disciplinary multi -disciplines not only have financial knowledge, but also can be proficient in knowledge and skills in many fields such as computers, data analysis, and artificial intelligence, and can better serve the financial industry.

The training of multi -disciplinary multi -professional integration of financial science and technology talents facilitates the innovation and development of the financial industry. Cross -disciplinary multi -professional integration financial science and technology talents have innovative thinking and keen insight, and can continuously explore new financial service models and technical applications to promote the innovative development of the financial industry.

Cultivating cross -disciplinary multi -professional integration fintech talents can enhance the competitiveness of the financial industry. Cross -disciplinary multi -professional integration fintech talents can provide more comprehensive and efficient financial services, enhance the competitiveness of the financial industry, and further promote the development of the financial industry.

6. Conclusions

The cultivation of financial science and technology talents with multi -disciplinary multi -disciplines is to adapt to the rapid changes in the financial industry, improve the comprehensive literacy of financial science and technology talents, promote the innovative development of the financial industry, and enhance the competitiveness of the financial industry. This requires major universities and training institutions to offer financial technology related majors and courses, and strengthen exchanges and integration between different disciplines and majors to cultivate knowledge and skills such as financial, computer, data analysis, artificial intelligence and other fields. Talent. The multi -disciplinary multi -professional integration of fintech talents has innovative thinking and keen insight, which can continuously adapt to and cope with the changing financial market and technical environment, and inject new impetus into the development of the financial industry.

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