

Master Program in Finance

Discipline Classification: Economics

First Class Discipline Code: 02

First Class Discipline Name: Economics

Second Class Discipline Code: 025100

Second Class Discipline Name: Finance

According to the master student program of Nanjing University of Information Science & Technology (hereinafter referred to as NUIST), and with reference to the relevant regulations of NUIST on international students, the international student master program of NUIST is formulated as follows:

1. Introduction to the Discipline

The financial major is based on the economic activities of financing money, and the discipline of how individuals, institutions and governments acquire, spend and manage funds and other financial assets is divided from economics. The term finance refers to two parts. The first part refers to money banking, the second part refers to international finance, the study is the balance of payments, exchange rate and other issues.

As a finance major, the students will learn the fundamental concepts and tools to make informed and responsible financial decisions using data and creativity. Finance students know how to estimate economic value and evaluate the risk of a project or a financial asset, to advise firms about paying for projects, and to appraise a firm's performance on the stock market. We successfully placed our graduates in business, industry and non-profit organizations.

2. Objectives

The major in finance is committed to cultivating the basic theories and methods of studying contemporary economics in an all-round way, mastering the basic theoretical knowledge and basic skills of finance, being familiar with financial investment and banking, having strong financial practical ability, and being able to engage in many jobs in the economic and financial fields, and the application-oriented composite talents with all-round development of moral, intellectual and physical development. The objectives in detail including:

To master modern financial theory, financial theory, quantitative methods in finance;

To be capable of developing, designing and applying new financial instruments to solve

financial issues creatively;

To be financial analysts in financial institutions and multinational corporations.

3. Study Directions

- (1) Weather Derivatives;
- (2) Quantitative Investment and Decision;
- (3) The Big Data Finance;
- (4) Finance Risk Management;
- (5) Blockchain;
- (6) Finance.

4. Educational System and Length of Study

The length of education for master students is two (2) years.

If due to special circumstances a master student is unable to graduate on time, the student must apply in person, following the writing of the supervisor's opinion and signature, the approval of the school affiliated. The application should be submitted to the Graduate School for approval and College of International Students for archiving. The maximum length of time that students can study at the University is five (5) years and during this extension period international students shall pay for the study and accommodation fees as required.

5. Course Introduction

5.1. Course Introduction

Finance: Starting with the analysis of financial operation objects - money, monetary funds, financial instruments, financial assets, this course expounds the principle of monetary time value, introduces the specific types and businesses of financial institutions and financial market systems, explains their important role in modern finance, and studies monetary policy and the theory of goods on which it is based.

E-commerce: The course mainly introduces the development trend of e-commerce, the social environment and technical environment for the operation of e-commerce, the basic theory of e-commerce, the collection and arrangement of e-commerce information, the methods of network marketing and promotion, the theory and flow of e-payment, the basic ideas and methods of network transaction security, and the basic principles of logistics. Through curriculum, students have the initial ability to independently engage in e-commerce, and have the knowledge

framework for the follow-up course learning and thee-commerce application capabilities improvement.

Corporate Finance: This course emphasizes the role of the financial manager as a decision maker and illustrates the need for manager input and judgment. The goal of this course is to develop the analytical skills for making corporate investment with regards to financial decisions and risk analysis. This course will examine various theories including the concept of present value, discounted cash flow analysis, a consortium of valuation techniques, issues between short- & long-term financial management, risk and return, capital asset pricing model, capital budgeting, corporate capital structure and financing decisions.

Statistics: Statistics is the methodological science of data collection, collation and analysis. Statistics covers all substantive sciences, and its basic method of understanding is to summarize and summarize the general quantitative characteristics of things on the basis of a large number of observations, including statistical survey, statistical collation, statistical analysis, statistical inference and other basic content. Statistics, as a methodological discipline, can provide methodological support for students in economic management to understand and discover the quantity law of economic management phenomena and carry out empirical research in this field.

Frontiers of Financial Theory: This course discusses the background of each financial frontier topic. It tracks the development of contemporary financial theory to better guide the future financial practice. It involves the development of leading-edge financial theory in the contemporary international context, with a focus on behavioral finance, corporate governance, capital market effectiveness, asset prices and monetary policy, financial risk warning, modern credit risk, financial derivatives pricing and other topics.

Application of Financial Measurement Software (Practice course): Application of Financial Measurement Software is a professional practice course. Through the teaching of this course, students will understand the computer technology in the financial econometric model analysis and should use the current situation and development trends and requirements, understand the design concept of the financial measurement economic model and the basic methods of financial market analysis, master the use of computer technology, especially the use of Eviews, MATLAB, Python data calculation functions, model estimation and testing of the basic methods and basic operating skills, learn the financial econometric model analysis and application of the

basic procedures and methods.

Econometrics: Econometrics is an important basic course in modern finance. On the basis of qualitative analysis of economic phenomena, it explores how to use statistical model methods to quantitatively describe the relationship between economic variables with random characteristics. This course introduces the basic theories and methods of econometrics and aims to develop the ability to use them in empirical research. Students are required not only to master econometric theory, but also to use econometric software to conduct empirical analysis of real economic problems at the end of the course.

Futures, Options and other Derivatives: This course is one of the core courses in finance engineering and finance. By the conclusion of this course, students should have achieved the following objectives: After a review of previous material, they will be able to understand the history of the derivatives market and the mechanism of the derivatives market. They will familiar with the derivatives like forward, futures, swaps and options, including the contract details, the payoff and how to delivery. They will have an understanding of how to hedge with forward futures and options. They will have a theoretical and practical understanding of how to value the derivatives.

Financial Information System: This is a selective course for students majoring in Finance. The objectives of the course are to help students understand the role of MIS in improving operations efficiency, achieving business excellence and competitive advantages; guide students to be aware of the intimate relationship between MIS and business strategies, processes, products, suppliers, customers, know the core technologies used in MIS, and improve the practical abilities in MIS.

Securities Investment: Securities Investment is an important part of finance and a link between macro-analysis and micro-pricing. This course focuses on value investment strategies for corporate financial analysis. It involves the contents of securities pricing, collect information, industry trends analysis. Considering the impact of micro-company characteristics on enterprise valuation and the modern investment concept of behavior and expectation, this course summarizes the securities valuation and investment strategy of enterprises.

Financial Risk Management: Financial Risk Management is a major course in financial engineering, which mainly introduces the quantification and management of financial institutions'

risk, and is a core course of financial engineering. Through the course, students will have a deep understanding of market risk management, credit risk management, liquidity risk management, interest rate risk management, off-the-table business risk management and capital adequacy ratio management.

Stock Simulation Experiment (Practice course): Stock Simulation is an important comprehensive practical teaching course for investment and financial management majors. After the futures simulation trading experiment, students can soberly recognize the risks in stock trading, learn how to carry out investment risk analysis, provide a variety of employment opportunities for future careers, and choose careers related to stock trading, such as brokerage, market analysis, accounting and computer, etc.

Supply Chain Management: Supply Management is an advanced graduate course for students majoring in Finance and is designed to study rules of operational activities and scientific management approaches for practices. The course focuses on theoretical aspects of the operational system as well as its activities, such as strategy formulation, process selection, location and facility layout strategies and methods, production scheduling strategies and method, inventory control models and the ability of applying theoretical knowledge to management practices.

5.2. Course Requirement

5.2.1 Degree Course (21 Credits)

A — General Basic Courses (10 credits)

B — Professional Basic Courses (11 credits)

5.2. 2. Non-Degree Courses (16 credits)

C — Limited Elective Courses (7 credits)

D — Professional Elective Courses (7 credits)

E — Practical Components / Practice Modules (2 credits)

6. Training Style and Methods

The program of master's students is a combination of course and thesis work. Usually, the course work will be done within one (1) year and the thesis work takes one year.

The training of master's students is implemented with the supervisor tutorial system. With

this system, supervision is carried out with a combination of a supervisor and a group of others.

7. Degree Thesis

(1) Topic Selection and Thesis Proposal

The master's degree thesis proposal should be completed in the early third semester. For those who need to postpone the submission of the proposal due to special circumstances, a written application should be submitted to the Graduate School in advance and the time limit for delay shall not exceed two (2) months. After the proposal is accepted, changes are not permitted in principle. If there is, however, a major change in topic selection, the proposal should be rewritten.

(2) Midterm Evaluation

Training unit shall organize an assessment panel to conduct a comprehensive review of each student's thesis progress. If a student fails the first mid-term assessment, an early warning mechanism will be activated to remind the student to make timely improvements. After making corrections within the specified period, the student may apply for a second assessment. If the student fails the second mid-term assessment and is deemed by the assessment panel to be unsuitable for continued training, the student will be given a certificate of completion rather than a degree, in accordance with university regulations. All students are expected to take the mid-term assessment seriously, complete their thesis progress on time, and ensure successful passage of the assessment.

(2) Thesis Writing Requirements

This is in accordance with the University thesis writing requirements.

(3) Thesis Pre-defense and Defense

Master's students must complete all the required courses, pass all the courses and midterm evaluation, complete academic and practice activities and acquire required credits before they are allowed to apply for thesis pre-defense which is held before the end of March each year. Then they will go for blind review of the thesis. Only those students who have passed the pre-defense and blind review can apply for the final defense.

(4) Degree Applications

Degree applications is carried out according to the specific implementation procedures outlined in the *Nanjing University of Information Science & Technology Masters and Doctorate*

Degree Conferment Regulations and the Nanjing University of Information Science & Technology Regulations on the Program and Qualifications of International Master Students (Trial).

Students must complete sufficient coursework in the program to earn no fewer than twenty seven (27) credits, including at least sixteen (16) credits from degree courses, achieve the required academic results, pass HSK Level 3 (or above), and successfully complete the thesis defense.

8. Practice

Practice is combined with Academic Reports and other practice activities. It is worth two (2) credits.

During the period of master's degree thesis work, a public academic report should be held at least once (excluding the Thesis Proposal). The student's supervisor and the school affiliated are responsible for assessing the quality of the academic report. Master's students should also participate in no less than six (6) academic activities including (but not limited to) academic reports, conferences, teaching and technology competitions both on and off the University campus. Students are required to take records on the *Academic Activities Brochure* and only qualified students can have the final defense.

南京信息工程大学英文授课留学生培养方案

Program for International Students in English-medium Instruction, Nanjing University of Information Science & Technology (NUIST)

Schedule 1: Curriculum for International Master's Students in Finance

Type	Course		Class Hours	Credits	Opening Semester	Teaching Method	Form of Evaluation	Note
A	入学教育	Orientation	16	1	1	In-Person Instruction	Exam	9 credits
	中国概况 I	China Overview I	32	1	1	In-Person Instruction	Exam	
	中国概况 II	China Overview II	32	1	2	In-Person Instruction	Exam	
	综合汉语 I	Comprehensive Chinese I	96	2	1	In-Person Instruction	Exam	
	综合汉语 II	Comprehensive Chinese II	96	2	2	In-Person Instruction	Exam	
	国际汉语能力强化	Chinese Language Proficiency Enhancement	64	2	3	In-Person Instruction	Exam	Electives 1 credit
	中国文化与气象	Chinese Culture and Meteorology	32	1	1	In-Person Instruction	Exam	
	中华文化与传播	Chinese Culture and Communication	32	1	1	In-Person Instruction	Exam	
	跨文化交际	Cross-cultural Communication	32	1	2	In-Person Instruction	Exam	
B	金融学	Finance	32	2	1	In-Person Instruction	Exam	11 credits
	电子商务	E-commerce	32	2	2	In-Person Instruction	Coursework	
	公司金融	Corporate Finance	48	3	1	In-Person Instruction	Exam	
	统计学	Statistics	32	2	1	In-Person Instruction	Exam	
	金融理论前沿	Frontiers of Financial Theory	32	2	2	In-Person Instruction	Coursework	
C	金融计量软件应用（实践课）	Application of Financial Measurement Software (Practice Course)	32	2	2	In-Person Instruction	Coursework	7 Credits
	计量经济学	Econometrics	32	2	2	In-Person Instruction	Coursework	
	期货、期权和其他衍生品	Futures, Options and Other Derivatives	32	2	1	In-Person Instruction	Coursework	
	人工智能通识课	General Education Course in Artificial Intelligence	16	1	2	In-Person Instruction	Coursework	
D	金融信息系统	Financial Information System	32	2	1	In-Person Instruction	Exam	No less than 7 credits
	证券投资学	Securities Investment	32	2	1	In-Person Instruction	Coursework	
	金融风险管理	Financial Risk Management	32	2	2	In-Person Instruction	Exam	

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	股票模拟实验 (实践课)	Stock Simulation Experiment (Practice Course)	32	2	2	In-Person Instruction	Coursework	
	供应链管理	Supply Management	32	2	2	In-Person Instruction	Exam	
E	学术报告和实践活动 (必修)	Academic Seminars (Compulsory)	32	2	2	Others	Others	2 credits

Note: A) General Courses; B) Major Compulsory Course; C) Limited-Elective Course; D) Major Elective Course; E) Practice

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Schedule 2: Contents and Requirements of Each Stage in the Master's Degree Program

Stage	Arrangements and Requirements	Time Point
1. Formulating the Individualized Study Plan	Based on the curriculum and in light of the student's actual situation, conducted under the guidance of the supervisor.	Within 1 week after enrollment
2. Coursework Stage	Arranged according to the course settings shown in Schedule 1.	
3. Academic Activities	During the period of study, the student shall participate in no fewer than 8 academic activities (including at least 2 activities outside the student's own secondary discipline).	
4. Thesis Proposal	Write the thesis proposal and organize a proposal defense.	Completed by the end of the third semester
5. Mid-term Assessment	Each training unit shall organize an assessment panel to conduct a comprehensive review of the student's thesis progress. Students who fail the assessment will trigger an early warning mechanism. If a student fails the mid-term assessment a second time and is deemed unsuitable for continued training, they will be given a certificate of completion rather than a degree.	Completed by the end of the third semester
6. Pre-defense	Each training unit shall organize a pre-defense expert panel to rigorously review the student's degree thesis or practical achievements, focusing on academic/research quality and innovation, workload, research outcomes, key conclusions or results, academic norms, etc., and provide specific suggestions for revision. Only after passing the pre-defense may the student submit the degree thesis or practical achievements for external review.	Completed in the fourth semester
7. Final Thesis Defense	After passing the college's defense qualification review, the student shall undergo degree thesis review and defense in accordance with the university's relevant regulations on thesis evaluation and defense.	Completed in the fourth semester