

Program of Finance for International Students (2019)

I. Introduction

The Department of Finance is one of the first five departments of SUSTC founded in 2011. Our department aims to build a strong, domestically and internationally recognized finance discipline. Our department adheres to the SUSTC's motto of "Research, Innovation and Entrepreneurship" in research. We strive to contribute our research to the national strategic plans and the regional development in the Pearl River Delta and Shenzhen. The research projects undertaken by the department in financial asset pricing theory and empirical analysis, Chinese finance theory and practice, E-finance trades and mechanism, risk measurement and monitoring in E-finance, and quantitative finance are all driven by the important issues in today's economy. Our department is committed to educating students with the most contemporary financial knowledge, critical thinking, entrepreneurship, and global vision so that they are ready to solve practical and challenging problems in China's finance and economy.

II. Objectives and Learning Outcomes

The Finance program is committed to educating students with a solid foundation of financial and economics knowledge, skills, methodology and theory. The program also aims to train students to be professional in the most contemporary forms of finance, which prepares them to pursue challenging careers in the financial sector as investment bankers, financial engineers, hedge fund managers, policy advisors for China's financial reforms and innovative entrepreneurs in the finance industry. This program not only provides a strong foundation for critical thinking, entrepreneurship, and global vision, but also develops innovative and visionary talents to solve the practical problems of China's financial reforms.

1. Have a basic understanding of classic theory, growth theory and business cycles theory, should be able to employ qualitative and quantitative methods to analyze and explain to others how various behaviors of economic agents and government policies can be explained by economics.

2. Students will be able to explain basic Corporate Finance concepts, such as time value of money and risk-return trade-off, evaluate firms' capital budgeting projects, dividend policy and capital structure, Read and analyse financial statements. Evaluate financial statements of a listed company.

3. You need to be familiar with commonly used financial database such as WIND (China) and WRDS (Global data), and master some statistical packages such as SAS, Matlab or R. You will be required to apply methods to do your own empirical work. To learn hands-on skills in investment .Econometrically model the real economic problems and interpret empirical findings.

III. Study Length and Graduation Requirements

Study length: 4 years

Degree conferred: Bachelor of Economics

The minimum credit requirement for graduation: 133 credits (not including English courses);

Category	Module	Minimum Credit Requirement
General Education (GE) Required Courses (47 credits)	Science	27
	Physical Education	4
	Chinese Languages & Culture	16
General Education (GE) Elective Courses (16 credits)	Humanities	4
	Social Sciences	4
	Arts	2
	Science	6
Major Course (70 credits)	Major Foundational Courses	21
	Major Core Courses	21
	Major Elective Courses	15
	Research Projects, Internship and Undergraduate Thesis / Projects	13
Total (not including English courses)		133

IV. Discipline

Finance

V. Main Courses

Major Foundational Courses: Probability and Statistics, Microeconomics, Macroeconomics, Financial Accounting, Corporate Finance

Major Core Courses: Special Topics in Finance and Entrepreneurship, Financial Data Analysis and Data Mining, Financial Investments, Econometrics, Options, Futures and Other Financial Derivatives, Empirical Methods in Finance

VI. Practice-Based Courses

Internship Programs

Our internship program provides students with professional and real-life business experience during their university years. We encourage students to get first-hand knowledge of how corporations operate on a day-to-day basis by recognizing their hard-work with credits towards graduation and by providing internship subsidies to cover their daily expenses. On top of this, we have established some connections with the business community for internship opportunities with many corporations.

VII. Pre-requisites for Major Declaration

Major Declaration Time	Course Code	Course Name	Prerequisite
Declare major at the end of First Year	MA101B	Calculus I A	
	MA102B	Calculus II A	MA101B
	MA107A	Linear Algebra A	
	CS102A	Introduction to Computer Programming A	
	FIN201	Microeconomics	
Declare major at the end of Second Year	MA101B	Calculus I A	
	MA102B	Calculus II A	MA101B
	MA107A	Linear Algebra A	
	CS102A	Introduction to Computer Programming A	
	MA212	Probability and Statistics	MA102B
	FIN204	Macroeconomics	
	FIN201	Microeconomics	

VIII. Requirements for GE Required Courses

(I) Science Module

Course Code	Course Name	Credit	Lab Credits	Hours/week	Term	Language Instruction	Prerequisite	Dept
MA101B	Calculus I A	4		4	1/Fall	E		MATH
MA102B	Calculus II A	4		4	1/Spr	E	MA101B	MATH
MA107A	Linear Algebra A	4		4	1/Fall	E		MATH
PHY103C	General Physics C (I)	3		3	1/Fall	E		PHY
PHY105C	General Physics C (II)	3		3	1/Spr	E	PHY103C	PHY
CH101B	General Chemistry B	3		3	1/Spr	E		CHEM
BIO102B	Introduction to Life Science	3		3	1/Fall/Spr	E		BIO
CS102A	Introduction to Computer Programming A	3	1	4	1/Fall	E		CSE
Total		27	1	28				

(II) Physical Education

Course Code	Course Name	Credit	Lab Credits	Hours/week	Term	Language Instruction	Prerequisite	Dept
GE131	Physical Education I	1		2	1/Fall	C	NA	PE Center
GE132	Physical Education II	1		2	1/Spr	C	NA	
GE231	Physical Education III	1		2	2/Fall	C	NA	
GE232	Physical Education IV	1		2	2/Spr	C	NA	
Total		4		8				

(III) Chinese Languages & Culture

Course Code	Course Name	Credit	Hours/week	Term	Language Instruction	Prerequisite	Dept
CLE008	Elementary Chinese I	2	4	1/Fall	B	NA	CLE
CLE009	Elementary Chinese II	2	4	1/Spr	B	CLE008	
CLE027	Intermediate Chinese I	2	4	2/Fall	B	CLE009	
CLE028	Intermediate Chinese II	2	4	2/Spr	B	CLE027	
CLE031	Advanced Chinese I	2	4	3/Fall	B	CLE028	
CLE032	Advanced Chinese II	2	4	3/Spr	B	CLE031	
CLE033	Chinese Culture	2	2	Spr/Fall	B/E	NA	CLE/ HUM/ SSC
CLE034	Chinese History	2	2	Spr/Fall	B/E	NA	
Total		16	28				

(IV) English Language

All students are required to undertake the English Placement Test before selecting courses, based on which students will be assigned to 3 levels to be ready for the courses with English as the instruction language.

SUSTech English III, English for Academic Purposes are required for Level A.

SUTech English II, SUSTech English III, English for Academic Purposes for Level B.

SUSTech English I, SUSTech English II, SUSTech English III, English for Academic for Level C.

Course Code	Course Name	Credit	Hours/week	Instruction Language	Prerequisite	Dept
CLE021	SUSTech English I	4	4	E	NA	CLE
CLE022	SUSTech English II	4	4	E	CLE021	
CLE023	SUSTech English III	4	4	E	CLE022	
CLE030	English for Academic Purposes	2	2	E	CLE023	

IX Requirements for GE Elective Courses

(I).Students are required to complete 4 credits for the Humanities Module and Social Sciences Module respectively, and 2 credits for the Music and Art Module. (Information about the available courses and the instruction language will be announced before the course selection session)

(II).Students are required to complete 6 credits for Science Module.

Course Code	Course Name	Credit	Lab Credits	Hours/week	Term	Language Instruction	Prerequisite	Dept
EE205	Signals and Systems	3	1	4	2/Fall	B	MA101B	EE
MA333	Introduction to Big Data Science	3		3	3/Fall	B	MA212	MATH
GE351	Scientific Literature and Writing	1		1	3/Fall	B		CHEM
CS101A	Introduction to Computer A	2		2	1/Fall	B		CSE
CS207	Digital Logic	3	1	4	2/Fall	B		CSE
CS205	C/C++ Programming Design	3	1	4	2/Spr	B		CSE
PHY104B	Experiments of Fundamental Physics	2	2	4	1/Spr	B		PHY
Total		17	5	22				

X. Major Course Arrangement

Table 1: Major Required Course (Foundational and Core Courses)

Course Category	Course Code	Course Name	Credit	Lab Credits	Hours/week	Term	take the course Advised term to	Instruction Language	Prerequisite	Dept.
Major Foundational Courses	FIN215	Political Economics	3		3	Fall	2/Fall	C		FIN
	FIN201	Microeconomics	3		3	Fall	1/Fall	B		FIN
	FIN204	Macroeconomics	3		3	Spr	1/Spr	B		FIN
	MA212	Probability and Statistics	3		3	Fall/ Spr	2/Fall/ Spr	B	MA102A	MATH
	FIN203	Financial Accounting	3		3	Fall	2/Fall	B		FIN
	FIN206	Corporate Finance	3		3	Spr	2/Spr	B	FIN203	FIN
	FIN303	Econometrics	3		3	Fall	3/Fall	B	FIN201 FIN204 MA212	FIN
	Total			21		21				
Major Core Courses	FIN205	Special Topics in Finance and Entrepreneurship I	1.5		1.5	Fall	2/Fall	C		FIN
	FET204	Commercial Bank	3		3	Fall	2/Fall	C		FIN
	FIN202	Special Topics in Finance and Entrepreneurship II	1.5		1.5	Spr	2/Spr	C		FIN
	FIN301	Financial Investments	3		3	Fall	3/Fall	B	FIN201 FIN204 MA212	FIN
	FIN417	Corporate Finance Case analysis	3	1	4	Fall	3/Fall	C	FIN201 FIN204 FIN206	FIN
	FIN305	Options, Futures and Financial Derivatives	3		3	Spr	3/Spr	B	FIN206 FIN301	FIN
	FIN302	Empirical Methods in Finance	3		3	Spr	3/Spr	B	FIN301 FIN303	FIN
	FIN310	China Economics and Finance	3		3	Spr	3/Spr	C	FIN201 FIN204 FIN206 FIN301	FIN
	Total			21	1	22				
Practice-Based Courses	FETS301	Internship	3	3	6	Smr	3/Smr	B		FIN
	FIN480	Projects of Science and Technology Innovation	2	2	4	Fall / Spr /Smr	ANY	B		FIN
	FIN490	Thesis	8	8	16	Spr	4/Spr	B		FIN
	合计			13	13	26				

Table 2: Major Elective Courses

Course Code	Course Name	Credit	Lab Credits	Hours/week	Term	take the course Advised term to	Instruction language	Prerequisite	Dept.
FIN102	Finance	3		3	Fall	1/Fall	B		FIN
FET102	Principles of Fintech	3		3	Fall	1/Fall	C		FIN
FIN101	Finance Marketing	3		3	Fall	1/Fall	B		FIN
CS209A	Computer system design and applications A	3	1	4	Fall	1/Fall	B	CS102A	CSE
FET203	FinTech Mathematics	3		3	Spr	1/Spr	B	MA107A	FIN
MA201b	Ordinary Differential Equations	4		4	Fall	2/Fall	C	MA102B	MATH
FIN213	Financial Markets and Institutions	3		3	Fall	2/Fall	B		FIN
FIN307	Database Management Systems and Financial Applications	3	1	4	Fall	2/Fall	B	CS209A	FIN
FIN209	Entrepreneurial Finance and Innovation I	3		3	Fall	2/Fall	B		FIN
FIN212	Financial Statement Analysis	3		3	Spr	2/Spr	B	FIN203 FIN206 FIN201 FIN204	FIN
FIN210	Economics of Money and Banking	3		3	Spr	2/ Spr	B		FIN
MA208	Applied Stochastic Processes	4		4	Spr	2/Spr	C	MA212or MA204	MATH
FETS101	Technical Innovation and Financial Innovation	1		1	Smr	2/Smr	C	FIN206	FIN
FIN411	International Finance	2		2	Fall	3/ Fall	B	FIN206 FIN301	FIN
FET303	Financial Risk Management	3		3	Fall	3/Fall	B	FIN206 MA212	FIN
FIN401	Computational Finance	3		3	Fall	3/Fall	B		FIN
MA303	Partial Differential Equations	3		3	Fall	3/Fall	B	MA201a	MATH
FIN311	Artificial Intelligence and Its Applications in Finance	3		3	Fall	3/Fall	B	CS102A	FIN
FMA303	Security Investments	3		3	Fall	3/Fall	B	MA212orMA204	MATH
FIN304	Financial Time Series	3		3	Fall	3/Fall	B	FIN201 FIN204 MA212	FIN
FET306	Business Analytics with Big Data	3	1	4	Spr	3/Spr	B		FIN
FIN208	Financial data analysis and Data Mining	3	1	4	Spr	3Spr	B	MA212	FIN
MA313	Stochastic Analysis	3		3	Spr	3/Spr	B	MA301	MATH
MA304	Multivariate Statistical Analysis	3		3	Spr	3/Spr	B	MA212orMA204	MATH
FIN306	Fixed Income: Models and Applications	2		2	Spr	3/Spr	B	FIN305	FIN
FIN308	Financial Economics	3		3	Spr	3/Spr	B	MA212 FIN206	FIN
MA308	Statistical Computation and Software	3	1	4	Spr	3/Spr	B	MA212orMA204	MATH

FIN407	Investment Banking	3		3	Spr	3/Spr	B	FIN206	FIN
FIN403	Cases in Financial Innovations	3	1	4	Fall	4/Fall	B	FIN305	FIN
FIN409	Financial Modeling and Analysis	3		3	Fall	4/ Fall	B	MA212 Or MA215	FIN
FIN413	Quantitative Investment Analysis	3		3	Fall	4/ Fall	B	FIN303 FIN301	FIN
Total		91	6	97					
Notes:									
1. Students are required to complete 15 credits for the Major Elective Courses.									

Table 3: Overview of Practice-Based Courses

Course Code	Course Name	Credit	Lab Credits	Hours/week	Term	take the course Advised term to	Instruction language	Prerequisite	Dept.	
CS209A	Computer system design and applications A	3	1	4	Fall	1/Fall	B	CS102A	CSE	
CS207	Digital Logic	3	1	4	Fall	2/Fall	B			
CS307	Database Principle	3	1	4	Spr	2/Spr	B			
CS205	C/C++ Programming Design	3	1	4	Fall/Spr	2Fall	B			
PHY104 B	Experiments of Fundamental Physics	2	2	4	Spr/Fall	1	B		PHY	
FIN307	Database Management Systems and Financial Applications	3	1	4	Fall	2/Fall	B	CS209A	FIN	
FET306	Business Analytics with Big Data	3	1	4	Spr	3/Spr	B			
FIN208	Financial data analysis and Data Mining	3	1	4	Spr	3/Spr	B	MA212		
MA308	Statistical Computation and Software	3	1	4	Spr	3/Spr	B	MA212 Or MA204		
FIN403	Cases in Financial Innovations	3	1	4	Fall	4/Fall	B	FIN305		
FETS301	Internship	3	3	6	Smr	3/Smr	B			
FIN480	Projects of Science and Technology Innovation	2	2	4	Fall/Spr/Smr	ANY	B			
FIN490	Thesis	8	8	16	Fall/Spr	4/Fall/Spr	B			
Total		42	24	66						

Table 4: Overview of Course Hours and Credits

Course Category	Total Course Hours	Total Credits	Credit Requirements	Percentage of the Total*
General Education (GE) Required Courses (not including English courses)	944	47	47	35%
General Education (GE) Elective Courses			16	12%
Major Foundational Courses	288	21	21	16%
Major Core Courses	368	21	21	16%
Major Elective Courses	1360	91	15	11%
Research Projects, Internship and Undergraduate Thesis/Projects	122	13	13	10%
Total (not including English courses)	3082	187	133	

* Percentage of the total= Credit requirements of each line / Total credit requirements

Curriculum Structure of Finance

Freshman	Sophomore	Junior	Senior
General Education	General Education	General Education	General Education
Microeconomics	Economics of Money and Banking	Financial Investments	Quantitative Investment Analysis
Macroeconomics	Special Topics in Finance and Entrepreneurship I II	Options, Futures and Financial Derivatives	Financial Modeling and Analysis
Finance	Commercial Bank	China Economics and Finance	Projects of Science
Computer system design and application A	Probability and Statistics	Empirical Methods in Finance	Thesis
Finance Marketing	Security Investments	Corporate Finance Case analysis	
Financial Accounting	Financial Statement Analysis	Internship	
Corporate Finance	<u>Econometrics</u>		

Note: The above is the recommended semester. Students can make adjustments according to their own academic plans.

