

# **Financial Engineering Program Education Plan**

## **1. Mission**

This program aims to provide cutting edge knowledge and skills required for a successful finance specialist or consultant in the corporate sector, investment banking, financial and academic institutions. The program focuses on corporate finance, quantitative analysis in financial decision making, analysis and evaluation of financial derivatives, portfolio management and provides a general knowledge of other areas of finance. The program is equally relevant for professionals working as security analyst, financial consultants and risk managers.

## **2.Objectives**

The four-year program provides students with a solid foundation in the principles and practices of financial decision making in the new era of liberalization and globalization. Major objectives of the program include:

teaching students the basic theories and principles of financial economics, corporate finance, security analysis, portfolio management and risk management.

making students acquire fundamental skills and techniques required for the design, analysis, synthesis, modeling, pricing and application of different financial assets and their derivatives.

sharpening students' analytical and problem-solving skills in financial decision making, such as risk and diversification, corporate valuation and value-based management as well as risk management.

keeping students in touch with the most up-to-date technologies and information systems by providing access to computerized databases, internet resources and financial software.

developing and improving students' oral and written communication skills through course work, class presentations and writing assignments.

encouraging the ability to work individually, as well as the spirit of teamwork and enhancing interpersonal skills through teamwork and group activities in class

assignments.

### **3. Degree requirements**

The School of Finance offers a flexible curriculum that leads to a Bachelor degree in applied economics. Students seeking a degree in this field are required to take a minimum of 155 semester credits. The expected duration of the program is 4 years.

### **4. Curriculum**

The program designation is a qualification for finance and investment professionals, particularly in the fields of investment management and financial analysis of stocks, bonds and their derivative assets. Students are required to complete 155 credits of course work as follows:

Course Type		Credits
General education courses	Required courses	50
	Elective courses	9
Basic Subject Courses	Required courses	46
Specialty courses	Elective courses	30
	Elective courses	10
other parts		10
Total		175

### **5. Hong Kong, Macao and Taiwan students teaching program requirements:**

In accordance with the Education Department regulation, Hong Kong, Macao and Taiwan students do not need to take the "National Defense Education" section courses and "Ideological and Political Theory" section courses, but have to take the rest of the courses in accordance with the teaching program requirements.

### **6. Curriculum for Foreign Students**

According to regulations by Chinese Ministry of Education and Guangdong

Provincial Education Department, foreign students are required to take all the courses except the ones related to national defense education. And foreign students excluding those majoring in economics can apply for exemption from courses related to politics theory. Those who are pursuing the degree study are required to take the courses “Chinese Language” and “China Country Profile”.

### 7.Financial Engineering Program Syllabus

Types	Name of Curriculum	Semester	Hours	Credit	Mean of Assesment
General education courses(59 credits)	College English( II b-IVb)	1-3	192	12	Exam
	Computer Fundamentals	2	32	2	Exam
	College Chinese	1	30	2	Exam
	Chinese Modern History	3	32	2	Exam
	Cultivation of Ideological Morality and Basic Laws	1	60	4	Exam
	Principles of Marxist	1	48	3	Exam
	Introduction to Maoism and Theoretical System of Socialism with Chinese Characteristics I II	4-5	96	3	Exam
	Academic English	4	32	2	Exam
	Applied Writing	3	32	2	Exam
	EC/CE Translation Teaching	3	64	4	Exam
	Military Theory	1	15	1	Test
	Situation and Policy	6	32	6	Test
	PE college( I II IIIIV)	1-2,5-6	126	2	Test
	Career Guidance	6	8	0.5	Test

	Business Basics	5	32	2	Test
	Undergraduate Psychology Consultation	2	16	1	Test
	Elective Courses in Humanities and Sciences	2,4-6	144	9	Test
Basic Subject Courses (46credits)	Socialist Economic Theory	1	32	2	Exam
	Advanced Mathematics I	1	90	6	Exam
	Advanced Mathematics II	2	64	4	Exam
	International Trade	2	32	2	Exam
	Macroeconomics	3	48	3	Exam
	Microeconomics	2	48	3	Exam
	Accounting	3	48	3	Exam
	Finance	3	48	3	Exam
	Linear Algebra	3	64	4	Exam
	The Science of Finance	4	48	3	Exam
	Statistics	4	48	3	Exam
	Probability and Statistics	4	64	4	Exam
	International Finance	5	48	3	Exam
Financial Econometrics	5	48	3	Exam	
Direction Required Courses (30 credits)	An Introduction to Financial Discipline	1	15	2	Exam
	Corporate Finance	5	48	3	Exam
	Financial Economics	5	48	3	Exam
	Financial Engineering	5	48	3	Exam or Paper
	Commercial Bank Management	6	48	3	Exam
	Investment	6	48	3	Exam

	Economic Analysis for Investment Decision	6	48	3	Exam
	Financial analysis software	6	36	2	Test
	Financial Risk Management	7	48	3	Exam
	Interest Theory	7	36	2	Exam
	Fixed Income Security	7	36	2	Test
Elective Courses (10 Credits)	Economic law	3	36	2	Test
	Management	4	48	3	Test
	Security Investment	4	36	2	Test
	Insurance	5	48	3	Test
	Financial planning practice	5	36	2	Test
	Behavioral Finance	6	36	2	Test
	Accounting of Financial Enterprises	6	36	2	Test
	The Micro Finance	6	36	2	Test
	Investment Fund Management	7	36	2	Test
	Investment Banking	7	36	2	Test
	Derivative Financial Instruments	7	36	2	Test
	Microfinance Technology and Risk Management	7	36	2	Test
	This module is suitable for undergraduates in finance, Bachelor of Economics candidates can take major elective courses, and credits can be admitted				
Other Training Sessions	Master Thesis	5			
	Professional Internship	4		4	
	Academic Activity and Literature Reading	1-5		1	

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