

# **Course Brochure**

# School of Economics Wang Yanan Institute for Studies in Economics Xiamen University

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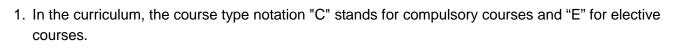
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5.	Commercial Banking	
6.	Corporate Finance	
7.	Data Mining	
8.	Econometrics	
9.	Econometrics II	
10.	Essentials of Economics	
11.	Financial Derivatives	
12.	Financial Economics	
13.	Financial Statement Analysis	
14.	Fixed-Income Securities	
15.	Intermediate Microeconomics	
16.	International Business	
17.	International Economics	
18.	Introduction to Thesis Writing	
19.	Labor Economics	
20.	Macroeconomics	
21.	Mathematical Finance	
22.	Mathematical Statistics	
23.	Microeconomics	
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26.	Political Economics	
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28.	Tax Planning	
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#### Note:



#### **Overview of SOE & WISE Undergraduate Programs**

WISE & SOE focus on high-quality economics and finance education, frontier research, and intensive international academic exchanges and cooperation. With excellent faculty members recruited from top overseas universities, WISE & SOE offers 3 types of Bachelor's Degree Program with 10 different majors, among which there are 5 Undergraduate Accelerated Programs which are conducted in English at the international standard.. We also have one Double Degree Program for undergraduate students from other schools at Xiamen University.

#### **Bachelor's Degree Program**

Major	Department	Degree	Duration
Economics	Economics		
Public Economics	Public Economics		
Taxation	Public Economics		
Finance		Bachelor of	
Financial Engineering	Finance	Economics	
Insurance			Four years
Economic Statistics	Statistics		r our years
Statistics	Statistics	Bachelor of Science	
International Economics and Business	International Economics and	Bachelor of Economics	
International Business	Business	Bachelor of Management	

Note: The courses in these programs are mostly conducted in Chinese.

#### **Undergraduate Accelerated Program (International Experimental Class)**

Major	Department/Institute	Degree	Duration
Economics	WISE		
Public Finance	Public Finance	Bachelor of Economics	
Finance	Finance		Four years
International Business	International Economics and Business	Bachelor of Management	

Otatiatiaa	Otatiatiaa	Bachelor of	
Statistics	Statistics	Science	

Note: The courses in these programs are mostly conducted in English.

**Double Degree Program** 

Major	Department/Institute	Degree	Duration
Economics	SOE	Bachelor of Economics	2~3years
Economics (Mathematical)	WISE	Bachelor	2~3years
Finance (Mathematical)	WISE	Bachelor	2~3years
Statistics (Mathematical)	WISE	Bachelor of Science	3years

Note: The courses in WISE are conducted in English and courses in SOE are conducted in Chinese.

#### **Overview of Graduate Programs at WISE**

WISE focuses on high-quality economics and finance education, frontier research, and intensive international academic exchanges and cooperation. With excellent faculty members recruited from top overseas universities, all academic programs are conducted in English at the international standard.

# Master's Degree Programs

Three-year Master's Programs for Chinese Students

Two-year Master's Programs for International Students at WISE and the School of Economics (SOE)

#### **Academic Master's Programs**

- Western Economics
- Quantitative Economics
- Finance
- Labor Economics
- Statistics
- Regional Economics

#### **Professional Master's Programs**

- Finance
- Applied Statistics

#### WISE:

- Finance
- Financial Engineering
- Management Economics
- Quantitative Economics
- Population, Resources and Environmental Economics

- Industrial Economics
- Labor Economics

#### SOE

- International Trade
- Statistics
- Regional Economics
- Public Finance

#### **PhD Programs**

#### Four-year

- Western Economics
- Quantitative Economics
- Finance
- Labor Economics
- Statistics
- Regional Economics

# Part One Curriculum

# 1. Undergraduate Accelerated Program (International Experimental Class)

# **Finance**

Course Name	Course Type	Credit
1 <sup>st</sup> Year		
Fall Semester		,
Mathematical Analysis I	С	3
Political Economics (Capitalism)	С	3
Principles of Accounting	С	3
Business Communication and	С	1
Culture I		I
Principles of Economics	С	3
Spring Semester		
Mathematical Analysis II	С	3
Political Economics (Socialism)	С	3
Microeconomics	С	3
Linear Algebra I	С	3
Business Communication & Cultural	С	1
2 <sup>nd</sup> Year		l
Fall Semester		
Mathematical Analysis III	С	4
Probability Theory	С	3
Macroeconomics	С	3
Managerial Accounting	С	3
C Programming Language	С	3
Spring Semester		(4
Financial Economics	С	3
Investments	С	3
Intermediate Financial Accounting	С	3
Mathematical Economics	С	3
Mathematical Statistics	С	3
3 <sup>rd</sup> Year		
Fall Semester		
Financial Engineering	С	3
Intermediate Financial Accounting	С	3
Econometrics	С	3
Corporate Finance	С	3
Spring Semester		
Fixed-Income Securities	С	3
Time Series Analysis	E	3
Derivatives Analysis and Trading	Е	3
Stochastic Process	E	3

Financial Statement Analysis	С	3
4 <sup>th</sup> Year		
Fall Semester		
Value Strategy	Е	3
Literature Reading and Thesis	C	2
Writing	C	3
Spring Semester		
Time Series Analysis	Е	3
Derivatives Analysis and Trading	Е	3
Stochastic Process	Е	3

# **International Business**

Course Name	Course Type	Credit
1 <sup>st</sup> Year		·
Fall Semester		
Business Communication and	С	1
Culture I		
Calculus III-1	С	5
Political Economics (Capitalism)	С	3
Principles of Accounting	С	3
Principles of Economics	С	3
Spring Semester		
Business Communication and	С	1
Culture II		
Calculus III-2	С	6
Linear Algebra I	С	3
Microeconomics	С	3
Political Economics (Socialism)	С	3
2 <sup>nd</sup> Year		
Fall Semester		
Business Interpreting	Е	3
(Chinese-English)		
Business Japanese and Etiquette	E	3
(Elementary)		
C Programming Language	С	3
Macroeconomics	С	3
Principles of Management	С	3
Probability Theory	С	3
Spring Semester		
Business Communication and	Е	3
Etiquette		

	<u> </u>	
International Business	С	3
Business English Correspondence	Е	3
International Economics	С	3
Mathematical Economics	С	3
Mathematical Statistics	С	3
3 <sup>rd</sup> Year		
Fall Semester		
Econometrics	С	3
International Finance: Theory and	Е	3
Policy		
International Marketing	С	3
International Trade: Theory and	E	3
Policy		
Spring Semester		
Development Economics	E	3
International Logistics and Supply	E	3
Chain Management		
4 <sup>th</sup> Year		
Fall Semester		
International Human Resources	С	3
Management		
Operation and Management of	E	3
Transnational Corporations		
Spring Semester		
Honor Thesis Writing	E	3

Financial Economics

# **Statistics**

Course Name	Course Type	Credit
1 <sup>st</sup> Year		······································
Fall Semester		
Business Communication and	С	1
Culture I		
Mathematical Analysis I	С	3
Political Economics (Capitalism)	С	3
Principles of Economics	С	3
Spring Semester		
Business Communication and	С	1
Culture II		
Mathematical Analysis II	С	4
Microeconomics	С	3
Political Economics (Socialism)	С	3

2 <sup>nd</sup> Year		
Fall Semester		
C Programming Language	С	3
Introductory Probability	С	3
Macroeconomics	С	3
Mathematical Analysis III	С	3
Principles of Statistics	С	3
Probability Theory	Е	3
Spring Semester		•
Data Structure and Algorithm	Е	3
Analysis		
Mathematical Statistics	С	3
Ordinary Differential Equation	С	3
Real Analysis	Е	3
3 <sup>rd</sup> Year		
Fall Semester		
Computational Methods	С	3
Econometrics	С	3
Operational Research	E	3
Ordinary Differential Equation	С	3
Sampling Techniques	E	3
Spring Semester		
Bayesian Statistics	E	3
Mathematical Modeling	С	3
Multivariate Statistical Analysis	E	3
Time Series Analysis	E	3
4 <sup>th</sup> Year		
Fall Semester		,
Categorical Data Analysis	E	3
Data Mining	E	3
Financial Econometrics	E	3
Financial Engineering	E	3
Microeconometrics and Its	С	3
Applications		
Risk Management	E	3
Spring Semester		
Undergraduate Thesis Writing	С	2

#### **Public Finance**

Type	Course Name	Course	Credit
		Туре	Orean

1 <sup>st</sup> Year		
Fall Semester		· T
Business Communication and Culture I	С	
Calculus III-1	С	
Political Economics (Capitalism)	С	
Principles of Accounting	С	
Principles of Economics	С	
Spring Semester		
Business Communication and	С	
Culture II		
Calculus III-2	С	
Linear Algebra I	С	
Microeconomics	С	
Political Economics (Socialism)	С	
2 <sup>nd</sup> Year		
Fall Semester		
C Programming Language	С	
Introductory Probability	С	
Macroeconomics	С	
Principles of Statistics	С	
Probability and Mathematical	С	
Statistics		
Spring Semester		
Financial Economics	С	
Intermediate Financial Accounting	E	
Mathematical Economics	С	
Mathematical Statistics	С	
Public Finance	С	
3 <sup>rd</sup> Year		
Fall Semester		
China's Taxation	Е	
Corporate Finance	Е	
Econometrics	С	
Financial Statement Analysis	Е	
Game Theory	Е	
Government Budget Management	E	
Intermediate Financial Accounting	Е	
Investments	E	
Spring Semester		
International Taxation	E	
Public Policy Analysis	E	
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Tax Planning	E	3
4 <sup>th</sup> Year		
Fall Semester		
History of Finance and Taxation	Е	3
Public Policy Analysis	Е	3
Undergraduate Thesis Writing	Е	3
Spring Semester		
Undergraduate Thesis Writing	Е	3

# **Economics**

Course Name	Course Type	Credit
1 <sup>st</sup> Yeaı	•	
Fall Semester		
Business Communication and Culture I	С	1
Principles of Accounting	С	3
Principles of Economics	С	3
Spring Semester		
Business Communication and Culture II	С	1
Linear Algebra	С	3
Microeconomics	С	3
Socialistic Political Economics	С	3
2 <sup>nd</sup> Yea	r	
Fall Semester		
Macroeconomics	С	3
Probability Theory	С	3
Spring Semester		
Financial Economics	С	3
Mathematical Statistics	С	3
3 <sup>rd</sup> Yea	•	
Fall Semester		
Chinese Economy	С	3
Econometrics	С	3
Game Theory	Е	3
Industrial Organization	Е	3
Investments	Е	3
Law Economics	Е	3
Urban Economics	Е	3

# Spring Semester

Development Economics	E	3
Economic Growth	Е	3
Environmental Economics	Е	3
Experimental Economics	Е	3
International Trade	Е	3
Mathematical Economics	С	3
Microeconometrics and Applications	Е	3
Time Series Analysis	E	3
4 <sup>th</sup> Year		
Fall Semester		
Chinese Economy	С	3
Game Theory	Е	3
Industrial Organization	Е	3
Investments	Е	3
Law Economics	Е	3
Literature Review and Thesis	С	3
Writing		3
Urban Economics	Е	3
Spring Semester		
Development Economics	Е	3
Economic Growth	Е	3
Environmental Economics	Е	3
Experimental Economics	Е	3
International Trade	Е	3
Microeconometrics and Applications	Е	3
Time Series Analysis	Е	3

# 2. WISE Undergraduate Double-Degree Programs

# **Economics (Mathematical)**

Course Name	Course Type	Credit
1 <sup>st</sup> Year		
Fall Semester		
Principles of Economics	С	4
Financial Economics	E	4
Econometrics I	С	4
Political Economics	С	4
Mathematical Economics	С	4
Spring Semester		
Microeconomics	С	4
Macroeconomics	С	4
Econometrics II	С	4
Mathematical Finance	Е	4
Short Summer Term		
Business Communication and	_	4
Culture	С	4
2 <sup>nd</sup> Year		
Fall Semester		
Microeconometrics and	E	4
Application	<u> </u>	4
Financial Time Series Analysis	С	4
International Finance	E	4
Spring Semester		
Labor Economics	E	4
Urban Economics	E	4
Corporate Finance	E	4
Financial Derivatives	E	4
Financial Risk Management	Е	4
Fixed-Income Securities	Е	4
Financial Statement Analysis	Е	4
Chinese Economy	Е	4
Application of Financial	E	А
Econometrics	Е	4
Introduction to Thesis Writing	С	2
Thesis Writing	С	6
Seminar	С	3

#### Note:

<sup>1.</sup> No less than 40 credits of major courses (except Seminar and Thesis Writing) are required to achieve a minor certificate.

2. All compulsory courses (including Introduction to Thesis Writing, Thesis Writing & Seminar) and at least 6 (24 credits) elective courses are required for a dual degree.

# **Finance (Mathematical)**

Course Name	Course	Credit
4st v	Type	
1 <sup>st</sup> Year		
Fall Semester		
Principles of Economics	<u>C</u>	4
Financial Economics	C	4
Econometrics I	C	4
Political Economics	С	4
Mathematical Economics		4
Spring Semester		
Microeconomics	С	4
Macroeconomics	С	4
Econometrics II	С	4
Mathematical Finance	С	4
Short Summer Term		
Business Communication and	•	4
Culture	С	4
2 <sup>nd</sup> Year		
Fall Semester		
Financial Time Series Analysis	С	4
International Finance	Е	4
Microeconometrics and	_	_
Application	E	4
Actuarial Science and Insurance	E	4
Stochastic Process	E	4
Chinese Economy	E	4
Application of Financial		
Econometrics	E	4
Spring Semester		i
Financial Risk Management	E	4
Financial Derivatives	E	4
Fixed-Income Securities		4
Urban Economics		4
Financial Statement Analysis		4
Corporate Finance	F	4
Introduction to Thesis Writing	C	2
	C	6
_	<u> </u>	
Thesis Writing Seminar	C	6 3

#### Note:

- 1. No less than 40 credits of major courses (except Seminar and Thesis Writing) are required to achieve a minor certificate.
- 2. All compulsory courses (including Introduction to Thesis Writing, Thesis Writing & Seminar) and at least 5 (20 credits) elective courses are required for a dual degree.

#### **Statistics (Mathematical)**

Course Name	Course Type	Credit
1 <sup>st</sup> Year		
Fall Semester		
Probability Theory	С	4
Business Communication and	С	4
Culture	C	4
Political Economics	С	4
Principles of Economics	Е	4
Spring Semester		
Mathematical Statistics	С	4
2 <sup>nd</sup> Year		
Fall Semester		
Analysis of Regression	С	4
Computational Data Analysis		
Using Software	С	4
Time Series Analysis and		
Application	С	4
Stochastic Process	E	4
Actuarial Science and Insurance	E	4
Microeconometrics and	_	
Application	E	4
Financial Economics	Е	4
Spring Semester		······································
Multivariate Statistical Analysis	С	4
Data Mining	С	4
Application of Financial	_	
Econometrics	E	4
Financial Derivatives	E	4
3 <sup>rd</sup> Year		
Fall Semester		
Categorical Data Analysis	E	4
Financial Risk Management		4
Spring Semester		
Applied Nonparametric Statistics	F	4

Corporate Finance	E	4
Mathematical Finance	Е	4
Introduction to Thesis Writing	С	2
Thesis Writing	С	6
Seminar	С	3

#### Note:

- 1. No less than 40 credits of major courses (except Seminar and Thesis Writing) are required to achieve a minor certificate.
- 2. All compulsory courses (including Introduction to Thesis Writing, Thesis Writing & Seminar) and at least 6 (24 credits) elective courses are required for a dual degree.

# 3. WISE-SOE International Master's Programs

#### **Master of Economics in Finance**

Course Name	Course Type	Credit
1st Year		•••••
Fall Semester		•••••
Advanced Macroeconomics I	С	3
Advanced Microeconomics I	С	3
Advanced Econometrics I	С	3
Introductory Mathematical Economics*	С	3
Financial Economics*	С	3
Selected Issues on China	С	2
Chinese I	С	2
Spring Semester		
Advanced Econometrics II	С	3
Corporate Finance*	С	3
Fixed Income Analysis*	С	3
Derivatives Analysis*	С	3
2nd Year		
Fall Semester		

Literature Review and Thesis Writing\* &Other elective courses

Courses marked with \*: Provided by other programs at WISE

#### **Master of Economics in Financial Engineering**

Course Name	Course Type	Credit
1st Year		O
Fall Semester		
Advanced Macroeconomics I	С	3
Advanced Microeconomics I	С	3
Advanced Econometrics I	С	3
Introductory Mathematical Economics*	С	3
Financial Economics*	С	3
Selected Issues on China	С	2
Chinese I	С	2
Spring Semester		
Advanced Econometrics II	С	3
Stochastic Processes*	С	3
Time Series Analysis*	С	3
Derivatives Analysis*	С	3
2nd Year		

Courses marked with \*: Provided by other programs at WISE

#### **Master of Economics in Management Economics**

Course Name	Course Type	Credit
1st Year		
Fall Semester		
Advanced Macroeconomics I	С	3
Advanced Microeconomics I	С	3
Advanced Econometrics I	С	3
Introductory Mathematical Economics*	С	3
Financial Economics*	С	3
Selected Issues on China	С	2
Chinese I	С	2
Spring Semester		
Advanced Econometrics II	С	3
Corporate Finance*	С	3
2nd Year		
Fall Semester		
Industrial Organization*	С	3
Literature Review and Thesis Writing* 8	Other elective o	ourses

Courses marked with \*: Provided by other programs at WISE

#### **Master of Economics in Quantitative Economics**

Course Name	Course Type	
1st Year		
Fall Semester		
Advanced Macroeconomics I	С	3
Advanced Microeconomics I	С	3
Advanced Econometrics I	С	3
Introductory Mathematical Economics*	С	3
Selected Issues on China	С	2
Chinese I	С	2
Spring Semester		
Advanced Econometrics II	С	3
Categorical Data Analysis *	С	3

Multivariate Statistics Analysis*	С	3
Mathematical Statistics *	С	3
Stochastic Processes*	С	3
Introductory Time Series Analysis*	С	3
2nd Year		
Fall Semester		
Micro-econometrics and Application*	С	3
Literature Review and Thesis Writing* &	Other elective cou	ırses

Literature Review and Thesis Writing\* & Other elective courses

- Courses marked in italic: Major core courses; subject to availability.
- Students should choose 3 of the 6 major core courses.
- Courses marked with \*: Provided by other programs at WISE.

#### **Master of Economics in International Trade**

Course Name	Course Type	Credit
1st Year	4	
Fall Semester		
Advanced Macroeconomics I	С	3
Advanced Microeconomics I	С	3
Advanced Econometrics I	С	3
Introductory Mathematical Economics*	С	3
Selected Issues on China	С	2
Chinese I	С	2
Spring Semester		
Advanced Econometrics II	С	3
Chinese Financial Systems	С	3
International Trade	С	3
Chinese Taxation	С	3
2nd Year		
Fall Semester		
Chinese Economy*	С	3
Literature Review and Thesis Writing* &Oth	er elective courses	

#### **Master of Economics in Industrial Economics**

Course Name	Course Type	Credit
1st Year		
Fall Semester		
Advanced Macroeconomics I	С	3

Advanced Microeconomics I	С	3
Advanced Econometrics I	С	3
Introductory Mathematical Economics*	С	3
Selected Issues on China	С	2
Chinese I	С	2
Spring Semester		
Advanced Econometrics II	С	3
Other elective courses		
2nd Year		
Fall Semester		
Empirical Application of Industrial	C	2
Organization*		3
Industrial Organization*	С	3
Micro-econometrics and Application*	С	3
Literature Review and Thesis Writing* &C	ther elective cou	ırses

<sup>-</sup> Courses marked in italic: Major core courses; subject to availability.

#### **Master of Economics in Labor Economics**

Course Name	Course Type	Credit
1st Year		
Fall Semester		
Advanced Macroeconomics I	С	3
Advanced Microeconomics I	С	3
Advanced Econometrics I	С	3
Introductory Mathematical Economics*	С	3
Selected Issues on China	С	2
Chinese I	С	2
Spring Semester		
Advanced Econometrics II	С	3
Regional Economics *	С	3
Urban Economics *	С	3
2nd Year		
Fall Semester		
Labor Economics *	С	3
Micro-econometrics and Application*	С	3
Literature Review and Thesis Writing* &	Other elective co	urses

<sup>-</sup> Courses marked in italic: Major core courses; subject to availability.

<sup>-</sup> Courses marked with \*: Provided by other programs at WISE.

<sup>-</sup> Students should choose 3 of the 4 major core courses.

- Courses marked with \*: Provided by other programs at WISE.

#### Master of Economics in Population, Resources and Environmental Economics

Course Name	Course Type	Credit
1st Year		
Fall Semester		
Advanced Macroeconomics I	С	3
Advanced Microeconomics I	С	3
Advanced Econometrics I	С	3
Introductory Mathematical Economics*	С	3
Selected Issues on China	С	2
Chinese I	С	2
Spring Semester		
Advanced Econometrics II	С	3
Environmental Economics	С	3
Economic Analysis of Environmental Policy	С	3
Energy Economics	С	3
Human Ecology	С	3
2nd Year		
Fall Semester		
Economics of Natural Resources	С	3
Climate Change Economics	С	3
Literature Review and Thesis Writing*	& Other elective co	urses

<sup>-</sup> Courses marked in italic: Major core courses; subject to availability.

#### **Master of Economics in Public Finance**

Course Name	Course Type	Credit
1st Year		
Fall Semester		
Advanced Macroeconomics I	С	3
Advanced Microeconomics I	С	3
Advanced Econometrics I	С	3
Introductory Mathematical Economics*	С	3
Selected Issues on China	С	2

<sup>-</sup> Students should choose 3 of the 6 major core courses.

Chinese I	С	2
Spring Semester		
Advanced Econometrics II	С	3
Public Finance	С	3
Chinese Taxation	С	3
Public Policy Analysis	С	3
2nd Year		
Fall Semester		
Micro-econometrics and Application*	С	3
Literature Review and Thesis Writing* & 0		

<sup>-</sup> Courses marked in italic: Major core courses; subject to availability.

#### **Master of Economics in Regional Economics**

Course Name	Course Type	Credit
1st Year		
Fall Semester		
Advanced Macroeconomics I	С	3
Advanced Microeconomics I	С	3
Advanced Econometrics I	С	3
Introductory Mathematical Economics*	С	3
Selected Issues on China	С	2
Chinese I	С	2
Spring Semester		
Advanced Econometrics II	С	3
Regional Economics	С	3
Real Estate Economics	С	3
2nd Year		
Fall Semester		
Urban Economics	С	3
Micro-econometrics and Application*	С	3
Literature Review and Thesis Writing* &	Other elective cou	ırses

<sup>-</sup> Courses marked in italic: Major core courses; subject to availability.

#### **Master of Economics in Statistics**

<sup>-</sup> Students should choose 3 of the 4 major core courses.

<sup>-</sup> Students should choose 3 of the 4 major core courses.

<b>Course Name</b>	Course Type	Credit
1st Year		
Fall Semester		
Advanced Macroeconomics I	С	3
Advanced Microeconomics I	С	3
Advanced Econometrics I	С	3
Introductory Mathematical Economics*	С	3
Selected Issues on China	С	2
Chinese I	С	2
Spring Semester		
Advanced Econometrics II	С	3
Stochastic Processes*	С	3
Introductory Time Series Analysis*	С	3
2nd Year		
Fall Semester		
Experimental Design and Analysis of	C	3
Variance		
Categorical Data Analysis*	С	3
Generalized Linear Model*	С	3
Literature Review and Thesis Writing*	& Other elective cou	ırses

- Courses marked in italic: Major core courses; subject to availability.
- Students should choose 3 of the 5 major core courses.
- Courses marked with \*: Provided by other programs at WISE.

#### **PhD of Economics in Statistics**

Course Name	Course Type	Credit
1st Year		
Fall Semester		
Advanced Macroeconomics I	С	3
Advanced Microeconomics I	С	3
Advanced Econometrics I	С	3
Introductory Mathematical Economics*	С	3
Selected Issues on China	С	2
Chinese I	С	2
Spring Semester		
Advanced Econometrics II	С	3
Advanced Macroeconomics II	С	3
Advanced Microeconomics II	С	3
Mathematical Economics*	С	3
2nd Year		
Fall Semester		
Time Series Analysis I*	С	3
Literature Review and Thesis Writing*	С	3
Micro-econometrics and Application*	С	3
Spring Semester		
Multivariate Statistics Analysis*	С	3
Other elective courses		

<sup>-</sup> Courses marked in italic: Major core courses; subject to availability.

<sup>-</sup> Courses marked with \*: Provided by other programs at WISE.

#### **PhD of Economics in Quantitative Economics**

Course Name	Course Type	Credit
1st Year		
Fall Semester		
Advanced Macroeconomics I	С	3
Advanced Microeconomics I	С	3
Advanced Econometrics I	С	3
Introductory Mathematical Economics*	С	3
Selected Issues on China	С	2
Chinese I	С	2
Spring Semester		
Advanced Econometrics II	С	3
Advanced Macroeconomics II	С	3
Advanced Microeconomics II	С	3
Mathematical Economics*	С	3
2nd Year		
Fall Semester		
Time Series Analysis I*	С	3
Micro-econometrics*	С	3
Applied Nonparametric Econometrics*	С	3
Literature Review and Thesis Writing*	С	3
Spring Semester		
Time Series Analysis II*		
Micro-econometrics*		
Financial Econometrics*	С	3
Other elective courses		

<sup>-</sup> Courses marked in italic: Major core courses; subject to availability.

<sup>-</sup> Courses marked with \*: Provided by other programs at WISE.

#### **PhD of Economics in Finance**

Course Name	Course Type	Credit
1st Year		
Fall Semester		
Advanced Macroeconomics I	С	3
Advanced Microeconomics I	С	3
Advanced Econometrics I	С	3
Introductory Mathematical Economics*	С	3
Selected Issues on China	С	2
Chinese I	С	2
Spring Semester		
Advanced Econometrics II	С	3
Advanced Macroeconomics II	С	3
Advanced Microeconomics II	С	3
Mathematical Economics*	С	3
2nd Year		
Fall Semester		
Asset pricing I: Discrete-time*	С	3
Financial Econometrics*	С	3
Literature Review and Thesis Writing*	С	3
Spring Semester		
Asset pricing II: Continuous-time  Models*	С	3
Fixed Income Analysis*	С	3
Derivatives Analysis: Algorithm Trading with Theory and Practice*	С	3
Corporate Finance*	С	3
Other elective courses	<u></u>	

<sup>-</sup> Courses marked in italic: Major core courses; subject to availability.

<sup>-</sup> Courses marked with \*: Provided by other programs at WISE.

#### **PhD of Economics in Western Economics**

Course Name	Course Type	Credit
1st Year		
Fall Semester		
Advanced Macroeconomics I	С	3
Advanced Microeconomics I	С	3
Advanced Econometrics I	С	3
Introductory Mathematical Economics*	С	3
Selected Issues on China	С	2
Chinese I	С	2
Spring Semester	\$	
Advanced Econometrics II	С	3
Advanced Macroeconomics II	С	3
Advanced Microeconomics II	С	3
Mathematical Economics*	С	3
2nd Year	<u>.</u>	
Fall Semester		
Advanced Topics in Macroeconomics I:		
Monetary Economics and International	С	3
Finance*		
Law and Economics*	С	3
Chinese Economy: Change and	С	3
Development*	C	
Development Economics*	С	3
Literature Review and Thesis Writing*	С	3
Spring Semester		
Advanced Topics in Macroeconomics II:	С	2
Open Macro and Search Model Applications*	C	3
Labor Economics	С	3
Industrial Organization	С	3
International Trade	С	3
Urban Economics	С	3
Other elective courses		

- Courses marked in italic: Major core courses; subject to availability.
- Courses marked with \*: Provided by other programs at WISE.

# 4. Master and PhD Programs

# **Academic Master's Programs & PhD Programs**

Course Name	Course Type	Credit
1st Year		
Fall Semester		
Advanced Macroeconomics I	С	3
Advanced Microeconomics I	С	3
Advanced Econometrics I	С	3
Mathematical Economics	С	3
Advanced Probability Theory	С	3
Study on the Theory and Practice of Socialism with	c	2
Chinese Characteristics*	_	_
Spring Semester		
Advanced Macroeconomics II	С	3
Advanced Microeconomics II	С	3
Advanced Econometrics II	С	3
Advanced Financial Economics	С	3
Advanced Mathematical Statistics	С	3
Computational Data Analysis Using Software	С	3
Marxism and Methodology for Social Sciences*	С	1
2nd Year		
all Semester		
Time Series Analysis I	Е	3
Law and Economics	Е	3
Asset Pricing	Е	3
Advanced Topics on Finance	E	3
Labor Economics	Е	3
Advanced Topics on Macroeconomics I: Monetary	Е	2
Economics and International Finance	E	3
Applied Microeconometrics	E	3
Microeconometrics and Panel data	E	3
Generalized Linear Models	Е	3
Applied Nonparametric Econometrics	Е	3
Multivariate Statistical Analysis	E	3
Study of the Capital*	Е	3
Spring Semester		
Advanced Corporate Finance	E	3
The Chinese Economy: Transitions and Growth	E	3
Derivatives Analysis	E	3
Urban Economics	E	3 3
Thesis Writing & Master Opening report	E	3
Professional English Writing	E	3
Environmental Economics	E	3

Experimental Economics	E	3
Bayesian Statistics	E	3
Courses marked with * are taught in Chinese		

# **Professional Master of Finance**

Course Name	Course Type	Credit
1st Year		
Fall Semester		
Advanced Macroeconomics I	С	3
Advanced Microeconomics I	С	3
Advanced Econometrics I	С	3
Financial Statement Analysis	С	3
Study on the Theory and Practice of Socialism with Chinese Characteristics*	С	2
Spring Semester		
Advanced Corporate Finance	С	3
Advanced Microeconomics II	С	3
Advanced Econometrics II	С	3
Advanced Financial Economics	С	3
Marxism and Methodology for Social Sciences*	С	1
2nd Year		
Fall Semester		
Behavioral Finance	Е	1.5
Mergers and Acquisitions	Е	1.5
Financial Econometrics	Е	1.5
Fixed Income Securities	E	1.5
Global Financial Markets	E	1.5
Contemporary Issues in Global Finance	E	1.5
Global Investment Principles	E	1.5
Financial Market and Financial Products	E	1.5
Financial Modeling with Excel VBA	Е	1.5
Spring Semester		
Fund Investment and Management	Е	1.5
Financial Modeling	Е	1.5
Financial Derivatives: Theory	E	1.5
Financial Derivatives: Practice	Е	1.5
Global Risk Management	Е	1.5
Global Equity Portfolio Management	Е	1.5
Global Corporate Governance	E	1.5

Financial leasing	Е	1.5
Business Ethics and Financial Norm	E	1.5
Innovative design of financial products and services process	E	1.5
Financial Services Marketing	Е	1.5
Quantitative Investment and Algorithm trading	E	1.5
Quantitative Portfolio Management	Е	1.5
Global Wealth Management	E	1.5

Courses marked with \* are taught in Chinese

# **Professional Master of Applied Statistics**

Course Name	Course Type	Credit
1st Year		
Fall Semester		
Advanced Macroeconomics I	С	3
Advanced Microeconomics I	С	3
Advanced Econometrics I	С	3
Sampling Inference	С	3
Study on the Theory and Practice of Socialism with	6	2
Chinese Characteristics*	С	2
Spring Semester		
Advanced Microeconomics II	С	3
Advanced Econometrics II	С	3
Advanced Financial Economics	С	3
Computational Data Analysis Using Software	С	3
Marxism and Methodology for Social Sciences*	С	1
2nd Year		
Fall Semester		
Multivariate Statistical Analysis	С	3
The Research of National Accounting Theories and	E	2
Method	E	3
Bayesian Statistics	Е	3
Generalized Linear Models	Е	3
Time Series Analysis (I)	Е	3
Applied Nonparametric Econometrics	Е	3
Investments	Е	1.5
The Statistics for Enterprise economic	Е	3
Spring Semester		
Financial Econometrics	С	3
Research on Theory and Application of Large-scale	_	
National Accounting	E	3
Theory and Method of Investment Economics	Е	3
Data Mining	Е	3

Risk Management	Е	3
Quantitative Investment	Е	1.5
Environment and Resources Accounting	Е	3
The Index-Number Theory and Application	Е	3

Courses marked with \* are taught in Chinese

# Part Two Course Information

## **SOE Undergraduate Programs (Fall Semester)**

#### 1. Actuarial Mathematics of Life Insurance

Targeted Level:	Course Type:
SOE Statistics & Finance Juniors	Elective
Prerequisite:	Instructors:
Probability and Statistics Theory, Interest Theory	Qingxia Li / Zhiqiang Zhang

#### Reference Book:

- Actuarial Calculation of Life Insurance, by CIRC, Publisher: China Financial & Economic Publishing House (11/2010), ISBN 978-7-5095-2556-2/F.2174
- Actuarial Mathematics, by Bowers, N.L., Publisher: Society of Actuaries (May 1/1997.), ISBN-13:978-0938959465.
- Actuarial Mathematics for Life Contingent Risks, by D.M. Dickson, M.R. Hardy and H.R. Waters, Publisher: Cambridge University Press (2009), ISBN-13:978-0-521-11825-5.
- > Theory of Interest, by Kellison, S.G., 2nd Edition, SOA, 1991.
- > Actuarial Science of Life Insurance, by Zhang Zhiqiang, China Economy Press, 2001.10
- Actuarial Mathematics of Life Insurance, by Lu Fangxian & Zhang Lin, China Financial and Economy Press, 2006.12

#### Course Description:

Based on life insurance, the course covers traditional actuarial models and theory of life contingencies, with modern computational techniques with an emphasis on the practical context for the survival models and valuation methods presented. Main content includes: Survival models, Insurance Benefits, Annuities, Premium Calculation, Reserve Valuation, Multiple state models, Policy values, and so forth. We intend for students to learn how to use the actuarial technology solving the practical problem.

## 2. Behavioral Economics and Finance

Targeted Level:	Course Type:
SOE Economics Juniors & Seniors	Elective
Prerequisite:	Instructors:

#### Reference Book:

- Camerer, C., Loewenstein, G., and Rabin, M. eds. 2004. Advances in Behavioral Economics. Russel Sage Foundation, Princeton, NJ: Princeton University Press.
- D. Kahneman. 2011. *Thinking, Fast and Slow.* Farrar, Straus and Giroux.
- > James Montier. 2002. Behavioral Finance: Insights into Irrational Minds and Markets. Wiley
- William Forbes. 2009. Behavioral Finance. Chichester, West Sussex; New York: Wiley.
- Nick Wilkinson. 2012. An Introduction to Behavioral Economics. Beijing: China Renmin University Press.

#### Course Description:

This course is to familiarize students the integration of psychological and experimental views and economic models. We will discuss how these views have changed our decisions, strategic interaction (game theory), and political

behaviors on market and auction under the uncertain and intertemporal environment. Additionally, we will explore how the findings of behavioral economics and finance affect welfare and policy decisions.

## 3. Business Communication

Targeted Level:	Course Type:
SOE International Economics and Business Sophomores	Elective
Prerequisite:	Instructors:
/	Roy Meek

#### Reference Book:

- Excellence in Business Communication (Thill and Bovee)
- Competent Communication (O'Hair)
- > Business and Administrative Communication (Locker)

## Course Description:

This course will focus on helping you to develop communication skills required by business and other organizations. The course also aims to make a useful contribution to your development as a person and to help you present yourself as competent and professional to employers.

We will study the psychology and sociology behind human communication. This knowledge will be applied to help you build productive relationships with your boss, colleagues and clients.

On a practical level, you will learn how to research, plan and write business letters, memos, emails and reports. Oral communication skills will include public speaking, communication in organizations, teams and as a manager.

## 4. Business Communication and Culture I

Targeted Level:	Course Type:
SOE IUEC Students	Compulsory
Prerequisite:	Instructors:
/	Katherine Anne Brown / H. A. Holden / Roslyn Bowers

## Reference Book:

Business Communication by Madhukant Jha, Gennext Publication, 2009.

#### Course Description:

Business Communication is the first level of a multi-course business communication sequence. This course will focus on building foundational skills in presentation and teamwork, as well as writing and general expectations, that will be used throughout the course sequence. Teamwork skills will be developed through a variety of problem-based learning activities focused on listening and speaking and allowing students to practice interacting in business situation simulations.

## 5. Business Interpreting (Chinese-English)

Targeted Level:	Course Type:
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SOE International Economics and Business Sophomores (IUEC)	Elective
Prerequisite:	Instructors:
Basic English, International Business	Liqing Lin

- > Business Chinese-English Interpreter Training Textbook by Shen Suping & Grace Zhang, China Social Sciences Press, 2006.
- Business Chinese-English Interpreting Tutorial by Xia Tian, Beijing Jiaotong University Press, 2008.
- > English-Chinese Interpreting and Translation by He Gangqiang, Fudan University Press, 2003.

## Course Description:

This is a course in communication skills in English for students who need, or will soon need to use English in their work. It is intended to help students develop the ability to orally convey spoken or written messages from English into Chinese and the other way around so that students can serve as an interpreter in international business.

## 6. Business Japanese and Etiquette (Elementary)

Targeted Level:	Course Type:
SOE International Economics and Business Sophomores	Elective
Prerequisite:	Instructors:
	Ganshu Zheng
/	Ganshu Zheng

## Reference Book:

- Kyoko Naito. Successful People's Business Etiquette. Tokyo: Seitoshya, 2013.
- Yang Juanjuan. Modern Business Japanese Course. Beijing: University of International Business and Economics Press, 2011.
- > Zhang Ying. Super Business, Japanese, Oral English. Dalian: Dalian University of Technology Press, 2011.
- Nakayama Yoshiko, Ozaki Ichiro. Japanese Business Day by Day. Shanghai: East China Normal University Press, 2010.
- Miyazaki Michiko. Business Japanese Oral Crash. Dalian: Dalian University of Technology Press, 2010.
- Yang Aiju, Liu Xiaorong. International Business Japanese Negotiation. Tianjing: Nankai University Press, 2009.
- Wang Zhengchun. Business Japanese Newspaper Articles Anthology. Beijing: University of International Business and Economics Press, 2009.
- Fu Yin. *Business Japanese 900 Sentences*. Beijing: University of International Business and Economics Press, 2009.

## Course Description:

This is a directionally elective course. By this course, the students can understand and master the professional terminology and basic expression of business activities and operational management in Japan. Additionally, the students can learn the basic knowledge of business etiquette in the activities with Japanese, and can do the basic business communication in Japanese. The task of this course in one semester is to help the students freely use basic Japanese business conversation, which could be the foundation of further self-study or the middle and senior business conversation.

## 7. C Programming Language

Targeted Level:	Course Type:
SOE IUEC, Statistics & Public Finance Students	Compulsory
Prerequisite:	Instructors:
/	Yangming Wang

#### Reference Book:

C Programming (4<sup>th</sup> Edition) by Tan Haoqiang, Tsinghua University Press, 2012.

## Course Description:

Computer technology is one of the important achievements of modern science and technology, computer knowledge and application ability is an important part of the contemporary college students' knowledge structure, C language is an important basic course for mastering other computer courses.

The purpose of this course is to train students' logical thinking ability, improve students' basic quality, and enhance the ability to adapt. At the same time for the future to learn other computer language and follow-up professional courses to lay the foundation

The task of this course is to make students establish the concept and process of program design, to understand the basic method of modular programming, and to further deepen the understanding of computer software system. To learn some ideas and techniques of writing and debugging programs, to be able to use C language to write a simple program to solve some practical problems.

## 8. Capital

Targeted Level:	Course Type:
SOE Economics Juniors & Seniors	Elective
Prerequisite:	Instructors:
Political Economics (Capitalism)	Changfa Ding

#### Reference Book:

- Introduction to Capital by Lin Gang, Hong Yinxing & Ju Guoyu, China Higher Education Press & People's Publishing House, 2012.
- Experts from Capital (1<sup>st</sup> Edition), People's Publishing House, 1998.
- Capital (Volume I. II & III) by Karl Marx, People's Publishing House, 1975.
- Analysis on Capital Operation by Gong Menggian, Peking University Press, 1998.
- > Theory of Capitalist Development by Paul M. Sweezy, The Commercial Press, 1997.
- Interpretation on Capital by Chen Zheng, Fujian People's Publishing House, 2017.
- Literature Review on Capital (Volume I) by Jiang Shaojin & Li Xuge, Fujian People's Publishing House, 1984.
- Research on the Research on Capital by Hu Peizhao & Sun Liancheng, Sichuan People's Publishing House, 1985.

## Course Description:

This course aims to help students understand the object, structure, methodology and meanings of the research on Marx's *Capital*. Students are expected to grasp Marx's labor theory, surplus value theory, capital accumulation theory, salary theory, economic crisis theory, monetary finance theory, theory of agriculture and village (theory of rent and

theory of peasantry economy), and theory of manufacturing price and average profit. The development of the above fundamental theories of Marx, the research and evaluation on these theories from both domestic and foreign academia, and their meaning on China's socialist market economy will be discussed. It is hoped that students can learned how to analyze domestic economic problems with Marx's economics after this course.

## 9. Categorical Data Analysis

Targeted Level:	Course Type:
SOE Statistics Seniors	Elective
Prerequisite:	Instructors:
Probability and Mathematical Statistics	Zhenghui Feng

#### Reference Book:

- > An Introduction to Categorical Data Analysis. Second Edition. Alan Agresti (2007). John Wiley & Sons.
- Analysis of Categorical Data. Agresti, A., New York: Wiley, 2002.
- > Generalized Linear Models. 2nd Ed. McCullagh P. and Nelder J., London: CRC Publishers, 1989.
- Introduction to Analysis of Categorical Data translated by Zhang Shumei, Wang Rui & Caoli, China Higher Education Press.
- > Practical Multivariate Statistical Methods and SAS by Gao Huixuan, Peking University Press.

#### Course Description:

This course deals with statistical models for the analysis of categorical data. It is designed for undergraduate students taking an introductory course in categorical data analysis, which has a low technical level and does not require familiarity with advanced mathematics such as calculus or matrix algebra. Topics to be covered include introduction to categorical data, inference for contingency tables, generalized linear models, with emphasis on logistic regression and logit models, and so on. The topics in this course can be chosen as graduate thesis (students will be supervised in the following semester).

## 10. The Chinese Economy: Transitions and Growth

Targeted Level:	Course Type:
SOE Economics Juniors & Seniors	Elective
Prerequisite:	Instructors:
/	Derong Zhang

#### Reference Book:

- Naughton, Barry. The Chinese Economy: Transitions and Growth, 2007, Cambridge, Mass.: The MIT Press
- Wu Jinglian, The Course of Modern Chinese Economy, 2010, Shanghai Far East Press.

## Course Description:

Building from the ground up, it covers first the endowments, legacies, economic systems, economic growth and structures, labor, and living standards of the Chinese economy. It then discusses the specific sectors, such as the rural and urban economy, energy, international trade and foreign investment, macroeconomic features, and financial systems.

#### 11. China's Taxation

Targeted Level:	Course Type:
SOE Public Finance Juniors	Elective
Prerequisite:	Instructors:
Taxation	Wei Xiong

#### Reference Book:

- Yang Bin. Taxation. Science Press, 2011.
- Textbook Writing Group of National CTA qualification examination. Taxation Laws I&II. Chinese Tax Affairs Press, 2015.

## Course Description:

According to the specific situation of China and the development status of 21st century, we should set the target of undergraduate education training of economic subject in developing three abilities: market consciousness and social adaption, wide broad of economic theory and engaged in specific economic business, competent in all economic sector (such as government tax sector, other economic sector, enterprises, and social intermediary institutions). Every aspect of the modern economy cannot live without taxes. Thus, as one of the professional courses of the major in taxation, this course introduces the country's tax base, tax system and application. Through this course, we hope students can grasp the essence of Chinese taxation and put it into practice.

## 12. Commercial Banking

Course Type:
Compulsory/Elective
Instructors:
Mengling Li

## Reference Book:

Bank Management & Financial Services (9th Edition), by Peter S. Rose., Sylvia C. Hudgians, Dai Gguoqiang. Mechanical Industry Press, (July, 2016), ISBN 978-7-111-54085-4

## Course Description:

Combining the current macroeconomic (economic downturn) and financial environment (strict supervision and de-leverage), the system explains the operation and management of commercial banks, explains and discusses openly the challenges and transformations faced by commercial banks, and the era of big data and the Internet. The discussion and explanation of the impact of finance on the experience management of commercial banks, systematically explain the performance evaluation, financial statements, asset and liability management, risk management and liquidity management of commercial banks, and examine the banks from the perspectives of assets and liabilities. Management and management, and forecast and discuss the development trend of the global banking industry.

## 13. Comparative Public Finance

Targeted Level:	Course Type:
SOE Finance Juniors	Elective
Prerequisite:	Instructors:
Political economy, Western Economics (Micro, Macro),	Jianhua Zeng
Public finance	

- > Xin Zhang, Comparative Public Finance (Tutorial), China Renmin University Press, March 2004 the first Edition.
- > Zhiyong Yang, Comparative Public Finance, Fudan University Press, June 2005 the first Edition.

## Course Description:

"Comparative Public Finance" is a comparative study of different countries finance courses, is a compulsory course in finance professional. The purpose and task of the course is to let the students understand the different characteristics of the domestic and international finance, and explore the special law and general law of the financial development of the world.

## 14. Computational Methods

Targeted Level:	Course Type:
SOE Statistics Juniors	Compulsory
Prerequisite:	Instructors:
/	Changming Chen

#### Reference Book:

- Numerical Analysis by Chen Changming, China Higher Education Press.
- Numerical Approximation (Second Edition) by Huang Youqian & Li Yuesheng, China Higher Education Press.
- Matrix Calculation and Equation Rooting (Second Edition) by Cao Zhihao, Zhang Yude & Li Ruixia, China Higher Education Press.
- Numerical Solution of Differential Equations (Third Edition) by Li Ronghua & Feng Guochen, China Higher Education Press.

## Course Description:

This course includes introduction, interpolation and approximation, optimal approximation, numerical integration and differentiation, direct methods and iteration methods for system of linear equations, numeration for matrix eigenvalue problems, and numeration for non-linear equation and system of linear equations.

## 15. Computerized Accounting

Targeted Level:	Course Type:
SOE Finance Juniors	Elective
Prerequisite:	Instructors:
Principles of Accounting, Intermediate Financial	Yanping Yu
Accounting	

- > New Computerized Accounting by Huang Zhengrui, Sun Yat-sen University Press, 2015.
- > ERP Financial Management System Experiment Tutorial by Wang Xinling et al., Tsinghua University, 2015.

#### Course Description:

This course focuses on the practice of financial accounting theories. It helps students to master and use computers to handle accounting issues. Through this course, students can grasp the basic principles of computerized accounting, major functions and using methods of financial accounting software, and types and development directions of these software, as well as lay a solid foundation for the future accounting job.

## 16. Corporate Finance

Course Type:
Compulsory/Elective
Instructors:
Haiwei Jing / Guojin Chen

#### Reference Book:

- Financial Markets and (Irwin/McGraw-Hill, 2002) Corporate Strategy, by Mark Grinblatt and Sheridan Titman
- Richard A. Brealey, Stewart C. Myers, and Franklin Allen, *Principles of Corporate Finance* (10th ed.), Irwin/McGraw-Hill, 2011.
- > Stephen A.Ross, Randolph W.Westerfield, Bradford D.Jordan: Corporate Finance, 2015.
- ZviBodie: Investments [M]. 2015.

## Course Description:

The objective of this course is to develop an understanding of the decisions financial managers face. In this course we will approach problems from the perspective of the Chief Financial Officer. We will focus on decisions concerning raising money (equity, debt, convertible bonds, etc.), and spending money (capital budgeting, acquisitions). The first part of the course will deal with real investment decisions (capital budgeting), while the second part will address decisions about how to finance those investments (capital structure). In the final part we will talk about mergers and acquisitions, which have both investment and financing implications.

Understanding CFO-type decisions will be helpful long before you become a CFO. For example, if you are working at a treasury group of a corporation, the material is directly relevant. If you are an investment banker you need to understand the rationale for designing and issuing securities. If you are in marketing or production, evaluating projects and understanding how the CFO makes her decisions are important. Finally if you are in consulting, capital budgeting and capital structure decisions will be the main agenda in many of your contracts.

Much of the material will be presented using simple examples designed to demonstrate how financial decisions can create, destroy, or modify value. Homework assignments will expand on these examples. However, the main issues we cover are conceptual. This is not the sort of class where solving a lot of exercises is useful; rather, it is important to master the main concepts.

## 17. Cross-Cultural Management

Targeted Level: Course 1	Type:
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SOE International Economics and Business Seniors	Elective
Prerequisite:	Instructors:
/	Roy Meek
Reference Book:	

Course Description:

This course presents and discusses the skills and character traits that are considered to be key to effective CCM. Specific actives like leadership, negotiation, and communication will be explored.

## 18. Data Mining

Targeted Level:	Course Type:
SOE Statistics Seniors	Elective
Prerequisite:	Instructors:
Probability Theory, Mathematical Statistics	Kuangnan Fang

#### Reference Book:

- James G, Witten D, Hastie T, et al. An Introduction to Statistical Learning. New York: springer, 2013.
- Fang Kuangnan. Data Science. Publishing House of Electronic Industry, 2018.
- > Hastie, Tibshirani, and Friedman, The Elements of Statistical
- Learning: Data Mining, Inference, and Prediction, Springer.

#### Course Description:

This course provides an accessible overview of the field of data mining and statistical learning, an essential toolset for making sense of the vast and complex data sets that have emerged in fields ranging from biology to finance to marketing to astrophysics in the past twenty years. This course presents some of the most important modeling and prediction techniques, along with relevant applications. Topics include linear regression, classification, resampling methods, shrinkage approaches, tree-based methods, support vector machines, clustering, and more. Color graphics and real-world examples are used to illustrate the methods presented. Since the goal of this course is to facilitate the use of these statistical learning techniques in science, industry, and other fields, it contains a tutorial on implementing the analyses and methods presented in R, an extremely popular open source statistical software platform.

## 19. E-Commerce

Targeted Level:	Course Type:
SOE Public Finance Juniors	Elective
Prerequisite:	Instructors:
1	Ye Wang
Reference Book:	
1	

Course Description:

This is the core of the economic class professional courses. We use the textbook which is relatively representative in the international public finance education and integrate the newest research result from the Chinese characteristics socialism finance. This course involves the basic theory of finance, fiscal expenditure, fiscal revenue and fiscal system, etc. We try to enable students to absorb the modern financial theory knowledge, apply knowledge to analyze China's fiscal problems, as to grasp a comprehensive system of the Chinese characteristics socialism finance.

## 20. Econometrics

Targeted Level:	Course Type:
SOE Statistics & IUEC Juniors	Compulsory
Prerequisite:	Instructors:
Probability, Statistics	Haiqiang Chen / Lvzhu Shen

#### Reference Book:

- Introduction to Econometrics by Stock and Watson, 3rd Edition
- Introductory Econometrics: A Modern Approach by Jeffrey M. Wooldridge, 6th Edition
- Econometrics (4<sup>th</sup> Edition) by Li Zinai & Pan Wenqing

#### Course Description:

This course is required for economics and statistics major, the main contents of this course is background of mathematical statistics, basic econometrics modeling, parameter estimation and statistical inference, multivariate regression models, discrete variables, endogeneity and instrumental variables, policy evaluation and treatment effect, panel data models, etc. This course aims at providing the students with good working knowledge of simple and multiple regression model, as well as a number of more advanced topics. The course will also introduce R language to help students apply modelling approaches to analyze empirical data.

## 21. Economic Growth

Targeted Level:	Course Type:
SOE Economics Juniors & Seniors	Elective
Prerequisite:	Instructors:
Microeconomics, Macroeconomics, Advanced	Changlin Yu

## Reference Book:

- The Economics of Growth by Philippe Aghion and Peter Howitt, MIT Press First Edition (2009), ISBN: 978-0-262-01263-8
- Economic Growth, by Barro, Robert. J and Xavier Sala-i-Martin, MIT Press, Second Edition (2004), ISBN: 978-7-5432-1836-9

#### Course Description:

Economic growth is an important branch in the field of macroeconomics, which mainly studies the sources of economic growth and the influencing factors of transnational income gap. It not only explain the facts and problems of economic growth, but also study the frontier knowledge of economic growth theory and the problems of growth policy. The main contents include: The Solow-Swan Model, Investment Externality and Knowledge Spillovers, Product Variety, The Schumpeterian Model, Human Capital and Economic Growth, Public Expenditures and Economic Growth, Finance

and Growth, Directed Technical Change, Club Convergence, Investing in Education etc.

## 22. Enterprise Economic Statistics

Targeted Level:	Course Type:
SOE Statistics Juniors	Elective
Prerequisite:	Instructors:
Advanced Mathematics, Economics, Statistics	Yuzhe Zhang

#### Reference Book:

- > Enterprise Operation Statistics by Wang Yanming, Science Press, 2015.
- Enterprise Economic Statistics by Qian Bohai, China Statistics Press, 1995.
- Enterprise Operation Statistics by Li Baoyu, Science Press, 2006.

## Course Description:

Enterprise Economic Statistics is a branch of Social Economic Statistics and a methodology about the quantitative characteristics and relationship of various enterprise economic activities. It is an information management system and the body of enterprise information system. It not only serves enterprise operation and management, but also provides necessary statistical information for macro-economic management. This course aims to help students understand how to use statistical methods to study the quantitative characteristics, theories and methods of enterprise economic activities, so that they can carry out statistical analysis, prediction and decision making related to enterprise economic activities.

## 23. Financial Accounting

Course Type:
Elective
Instructors:
Yongqiang Zhou

## Reference Book:

- Intermediate Financial Accounting by Du Xingqiang & Sang Shijun, Liaoning People's Publishing House.
- Accounting by the Chinese Institute of Certified Public Accountants.

## Course Description:

Based on Principles of Accounting, this course focuses on the fundamental theories and methods of financial accounting, and the practice in enterprise's accounting. Additionally, students will learn relevant accounting laws, regulations, rules and international conventions, be familiar with latest development trends, and master basic accounting skills.

## 24. Financial Econometrics

SOE Statistics Seniors & Finance Juniors	Elective
Prerequisite:	Instructors:
Finance, Econometrics	Huiping Yuan

- > Applied Econometric: Time Series, fourth Edition by Walter Enders.
- > Tsay, Analysis of Financial Time Series, Third Edition, Chris Brooks, Introductory Econometrics for Finance, Third Edition, Cambridge University Press, 2014.
- > David Ruppert: Statistics and Finance: An Introduction, Springer, 2004.

## Course Description:

The course introduce methods of analyzing financial data, financial phenomenon, financial issues, including theory, examples, as well as operations of software.

In addition, two or three top journal papers are to be expounded.

## 25. Financial Engineering

Targeted Level:	Course Type:
SOE Statistics Seniors & Finance Juniors	Compulsory/Elective
Prerequisite:	Instructors:
Principles of Economics, Principles of Finance, Calculus,	Haiqiang Chen / Miaoxin Chen
Linear Algebra	

## Reference Book:

- Hull, J. (2010): Options, Futures, and Other Derivatives, 7th Edition. Pearson Education.
- > Paul Wilmott, On Quantitative Finance, 2nd Edition.
- > Zheng Zhenlong & Chen Rong (2016): Financial Engineering (4<sup>th</sup> Edition). China Higher Education Press.

## Course Description:

This module introduces the concept of derivative pricing based on the idea of an arbitrage-free market. Basic derivative instruments such as forwards, futures, options, and swaps will be covered. Valuation models for forwards and the Black-Scholes model for options will be studied. The difference between forwards and futures will be discussed. The module contents will also address the hedging issue and the trading issue. From a hedging perspective, option Greeks, interest rate and currency swaps versus exposures, and forward-spot basis risks will be studied. From a trading perspective, arbitrage opportunities, violations of parities such as put-call parity, and other options strategies will be reviewed.

## 26. Financial Risk Management

Targeted Level:	Course Type:
SOE Finance Seniors	Compulsory
Prerequisite:	Instructors:

Intermediate Econometrics, Intermediate Finance,	Tian Xie
Intermediate Macroeconomics, Intermediate	
Microeconomics	

- Kevin Dowd (2005), Measuring Market Risk (Second Edition), John Wiley & Sons, Ltd., ISBN: 0-470-01303-6
- Michel Crouhy, Dan Galai, Robert Mark (2014), The Essentials of Risk Management (Second Edition), McGraw-Hill Education. ISBN: 0-071-81851-0

#### Course Description:

This course provides an overview of Risk Management (RM) principals. The goal of the course is to teach you the basics of the RM theory and practice of RM techniques. The course will build upon the knowledge and skills you gained in intermediate finance and econometrics courses. Students will learn how to interpret, design, and execute empirical financial risk management projects using MATLAB software and skill building in critical thinking and problem solving will also be emphasized. We will additionally explain important issues and topics that recently happened in the global financial markets.

## 27. Financial Statement Analysis

Targeted Level:	Course Type:
SOE Public Finance Juniors	Elective
Prerequisite:	Instructors:
Foundation of Accounting, Intermediate Financial	Yue Pan / Yue Qiu
Accounting	

## Reference Book:

- Zhang Xinmin & Qian Aimin, Financial Statement Analysis (4<sup>th</sup> Edition).
- > Huang Shizhong, Financial Statement Analysis: Theory, Framework, Methodology & Case Study.
- Easton, McAnally, Sommers and Zhang (2013), *Financial Statements Analysis & Valuation* (Third Edition), Cambridge Business Publishers. ISBN: 978-1-61853-009-7
- Martin S. Fridson, Fernando Alvarez (2011), Financial Statement Analysis: A Practitioner's Guide (Fourth Edition), John Wiley & Sons. ISBN: 978-0470635605

## Course Description:

Corporation Financial Analysis is a compulsory course for the students who major in finance, while open to the students in other majors in School of Economics, it is a Public elective course in School of Economics. The main purpose of this course is to enable students to fully grasp the basic knowledge of Corporation Financial Analysis, and to train the students to develop the intuitions in financial analysis, through theory teaching and case discussing, so that the students will have the basic ability to analyze and solve the financial statements' problems, such as the ability to master the entry point of the financial statements analysis, while using the Harvard analysis framework to analyze the financial statements of listed companies to identify problems and seek solutions. In short, this course aims to lay a solid foundation for students to engage in academic research and business practice.

## 28. Fixed-Income Securities

Targeted Level:	Course Type:
SOE Finance Juniors	Compulsory
Prerequisite:	Instructors:
Principles of Finance	Baolin Xu

Frank J. Fabozzi: Bond Markets, Analysis and Strategies (Ninth Edition)

#### Course Description:

This course introduces students to the theoretical tools and foundations necessary to understand macroeconomics. Students will be introduced to various topics in macroeconomics like the determination of national income, money and inflation, unemployment, economic growth, business cycles, and macroeconomic policy.

## 29. Game Theory

Targeted Level:	Course Type:
SOE Public Finance Juniors	Elective
Prerequisite:	Instructors:
Calculus I – III, Probability Theory, Intermediate	Yun Wang
D. (	

#### Reference Book:

- An Introduction to Game Theory, by Martin J. Osborne, Publisher: Oxford University Press (August 7, 2003), ISBN-10: 0195128958, ISBN-13: 978-0195128956
- Game Theory for Applied Economists, by Robert Gibbons, Princeton University Press Reprint Edition (July 13, 1992), ISBN-10: 0691003955, ISBN-13: 978-0691003955

## Course Description:

Game theoretical reasoning pervades economic theory and is used widely in other social and behavioral sciences. This course presents the main ideas of game theory and shows how they can be used to understand economic, social, political, and biological phenomena. It emphasizes the ideas behind the theory rather than their mathematical expression and assumes no mathematical knowledge beyond college calculus and probability theory. All concepts are defined precisely, and logical reasoning is used throughout. The aim is to explain the main ideas of game theory as simply as possible while maintaining complete precision. After completing this course students will be able to view social interactions as strategic games, to use game theoretic concepts to predict behavior in these interactions and to conceive of ways in which altering the rules of the game will affect outcomes.

## 30. Government Budget Management

Targeted Level:	Course Type:
SOE Public Finance Juniors	Elective
Prerequisite:	Instructors:
Public Finance, China's Taxation	Juncheng Feng
Reference Book:	

- > Government Budget by Ma Muchen, Dongbei University of Finance & Economics Press, 2018.
- Government Budget Management by Li Yan, Peking University Press, 2016.

#### Course Description:

This course is about applied theory. Government budget is the government annual financial revenue and expenditure approved through legal procedures and is closely related to public finance. Government budget management is the collection, allocation, organization, coordination and supervision of budget fund carried out by governments according to laws and regulations.

Based on basic theory and institution of budget management, this course introduces the basic theory, management procedure and management methods of government budget and focuses on the basic theory, budgeting, approval, implementation, final accounting, performance evaluation and budget evaluation.

## 31. History of Economic Thought

Targeted Level:	Course Type:
SOE Juniors & Seniors	Compulsory
Prerequisite:	Instructors:
Principles of Economics	Jingjing Cai

#### Reference Book:

- > The Evolution of Economic Thought (8th Edition) by Stanley L. Brue et al., Peking University, 2014
- History of Economic Analysis by Schumpeter, Commercial Press, 1992.
- History of Economic Thought: A Critical Perspective by E.K. Hunt. Shanghai University of Finance and Economics Press, 2007.
- A History of Economic Theory and Method by Eklund et al., China Renmin University Press, 2001.

#### Course Description:

The history of economic thought studies the history of the formation and development of various economic thoughts. The course of history of economic thought is a general course offered by the school of economics for undergraduates of all majors of economics. Its purpose is to help students broaden their horizons of professional knowledge and deepen their understanding of various courses of economics from the perspective of "history". Through learning this course, students can systematically understand the historical background, ideological origins, main viewpoints and influences of major economic thoughts, and compare the differences and connections among various major thoughts, thus helping students to have a deeper understanding and grasp of various current economic theories and economic theories. In the teaching process, teachers can properly guide students to read the writings of some representatives of major economic thoughts in order to cultivate students' comparative analysis ability in addition to systematically introducing the historical background, ideological origins, main viewpoints and influences of major economic thoughts.

## 32. History of Finance and Taxation

Targeted Level:	Course Type:
SOE Public Finance Seniors	Elective
Prerequisite:	Instructors:

Political Economics, Public Finance, Taxation, Economic	Guoqing Zhu
History of China	

- > History of China's Public Finance by Sun Yigang & Wang Wensu, China Social Sciences Press, 2007.
- General History of China's Public Finance by Xiang Huaicheng, China Financial & Economic Publishing House, 2006.
- History of China's Public Finance by Huang Tianhua, Shanghai University of Finance and Economics, 1999.
- > History of China's Public Finance, China Financial & Economic Publishing House, 1987.
- History of China's Taxation, China Financial & Economic Publishing House, 1987.
- History of China's Public Finance by Zhou Bodi, China Financial & Economic Publishing House, 1981.
- History of Fujian's Public Finance by Chen Kejian, Xiamen University Press, 1989.

#### Course Description:

Through the systematically study of the formation and development of China's fiscal and taxation system, we aim students to looking at history from the perspective of Finance and solving fiscal problems from the perspective of history. To enable students to further understand the theory and policy of Finance and consolidate the professional theoretical knowledge. Training students to treat history with economic perspective and solve economic problems by historical methods. Strengthen students' professional quality and combined with the existing problems in the current taxation and taxation work. Infer other things from one fact and summarize experiences and lessons of the historic practice. Make the past serve the present and have the knowledge of the history and culture that is necessary for the financial work.

## 33. Honor Thesis Writing

## Reference Book:

- Ten Misunderstandings in Modern Economics by Hong Yongmiao, Journal of Translation from Foreign Literature of Economics, 2015.
- Basic Analysis Framework and Research Methodology in Modern Economics by Tian Guoqiang, Economics Research, 2005.

## Course Description:

This course is to help students write their graduate thesis, including the selection of economic research topics, econometrics methods, thesis structure and guidance for thesis defense. It is hoped that after the systematic review, students can not only finish their thesis writing, but also deepen their understanding for economic theories and application, so as to improve their individual research abilities. It is also hoped that the group discussion on efficient arrangement and design can enhance students' academic communication skills, team work abilities, self-learning abilities, and academic presentation abilities.

This course would last for two semesters. The first semester focuses on the selection of topics and methodologies, and students should complete the thesis proposal and the computer operation of econometrics. The second one emphasizes students' writing and presentation abilities and helps students to attend the honor thesis defense.

## 34. Theory of Industrial Organization

Targeted Level:	Course Type:
SOE International Economics and Business Juniors	Elective
Prerequisite:	Instructors:
Microeconomics, Econometrics	Xi Yang

#### Reference Book:

- Industrial Organization: Contemporary Theory and Practice by Peppal, Lynne, Daniel Richards, and George Norman, Thomson-South Western, 2005.
- Introduction to Industrial Organization by Luis M.B. Cabral, Posts & Telecom Press, 2001
- Modern Industrial Organization (4<sup>th</sup> Edition) by Dennis W. Carlton and Jeffrey M. Perloff, China Renmin University, 2009

## Course Description:

This is a selective course for students majoring economics and international trade. We will introduce theories of market structure and analyze how firms strategically compete with each other using game theory tools. We will further explore the implications of imperfect competition in terms of firm profit, consumer surplus and social welfare. We may apply these analytical tools in the studies of trade policy making and its welfare issues.

#### 35. Insurance

Targeted Level:	Course Type:
SOE Finance Juniors	Elective
Prerequisite:	Instructors:
Economics	Zhengtang Zhao

#### Reference Book:

- Insurance (4<sup>th</sup> Edition) by Wei Hualin & Lin Baoging, 2017.
- Individual Risk Management and Insurance Planning by Liu Yonggang, 2011.
- Principles of Risk Management and Insurance by George E. Rejda, 2017.

## Course Description:

The teaching purpose of this course is to systematically teach the basic principle of insurance and the basic practice knowledge to students, which makes students further understand the dynamic development of the insurance market, and timely grasp the direction of the reform of China's insurance and the trend of the development of the insurance, in order to cause the student to improve the comprehensive analysis and problem solving skills, and provide a basis for specialized courses of study in the future.

## 36. Intermediate Financial Accounting

Targeted Level:	Course Type:
SOE Finance & Public Finance Juniors (IUEC)	Compulsory/Elective

Prerequisite:	Instructors:
Principles of Accounting	Juanjuan Huang

- Intermediate Accounting (12<sup>th</sup> or 13<sup>th</sup> Edition)
- Intermediate Financial Accounting (5<sup>th</sup> Edition) by Liu Yongze, Dongbei University Financial & Economics Press, 2018.
- Accounting, China Financial & Economic Publishing House, 2017.
- Accounting Standards for Business Enterprise, China Financial & Economic Publishing House, 2018.

#### Course Description:

This course covers intermediate financial accounting, financial reporting and decision-making. The main focus will be the concepts, methods, and uses. The principal objectives of the course are:

- (1) To help students develop a sufficient understanding of the basic concepts underlying financial statements so that they can apply the concepts to new and different situations.
- (2) To provide students with accounting terminology and methods so that they can interpret, analyze, and evaluate financial statements prepared by firms.
  - (3) To provide the tools needed to understand what GAAP is and how they are being used in practice.

## 37. Business English-Higher

Targeted Level:	Course Type:
SOE International Economics and Business Sophomores	Elective
Prerequisite:	Instructors:
/	Liqing Lin

## Reference Book:

Success with BEC

## Course Description:

Business English-Higher, a course in communication skills, is for those who need, or will soon need, to use English in their work. The materials chosen are business-based and the activities involved are task-oriented. All this will reflect the kind of standard business practice that people in the business world are likely to encounter in their workplace. It is designed for a wired variety of learners ranging from young students or trainees with no or little work experience to senior business people with ample experience of dealing with foreign business partners or counterparts. The material falls into two parts: Business Topic and Business Skill. Business Topic covers the major topics of business, such as Ways of Working, Company Benefits, Advertising, Branding, Management, Ethical Economics, Law, etc. in Business Skill, learners are trained in such high-frequency skills as making contacts, presenting your company, delegating, negotiating, leaving and taking messages.

## 38. International Finance

Targeted Level:	Course Type:
SOE Finance Juniors	Compulsory
Prerequisite:	Instructors:

/	Haiyan Yu

- International Finance, by Mengnan Zhu, Xiamen University Press Reprint Edition (January, 2013), ISBN 978-7-5615-1523-5.
- Multinational Business Finance, by Michael Moffett, Arthur Stonehill & David Eiteman, ISBN 978-0-13-609668-9.

## Course Description:

International Finance is a discipline, focusing on the study of basic theory of the international finance, exploring the international financial operation mechanism, and analyzing the development and changes of international financial phenomena. The contents of this course mainly include both theory and practice relating to the international balance of payments, foreign exchange and currency exchange, exchange rate regime, international financial markets, international capital flows, international reserves, international monetary system, the international financial crisis and so on.

## 39. International Finance: Theory and Policy

Targeted Level:	Course Type:
SOE International Economics and Business Juniors	Elective
Prerequisite:	Instructors:
Intermediate Macroeconomics and Intermediate	Hao Jin
Microeconomics	

#### Reference Book:

- Paul R. Krugman, Maurice Obstfeld, Marc Melitz (2014): *International Economics: Theory and Policy*, 10th Edition, Pearson. ISBN-13: 978-0133423648.
- Stephanie Schmitt-Grohe, Martin Uribe and Michael Woodford (2016): International Macroeconomics, Manuscript, Columbia University.

## Course Description:

This course introduces basic empirical facts and theoretical frameworks to study topics in international financial markets. Specific topics include balance-of-payments accounting, international capital flows, exchange rate determinations, and macroeconomic policy in open economies. Students will have the opportunity to develop insight on how the global financial markets behave, how these behaviors affect their life, and analyze actual problems in open economy macroeconomic policy.

## 40. International Corporate Finance

Targeted Level:	Course Type:
SOE International Economics and Business Seniors	Elective
Prerequisite:	Instructors:
/	Ninghua Ye
Reference Book:	

- > International Corporate Finance, Peking University Press, Jeff. Madura.2013.
- International Financial Management, China Machine Press, Bruce G. Resnick, 2013

#### Course Description:

This course provides a microeconomic framework, with a focus on the managerial aspects of international financial management.

The course mainly relates to the basic description of the international financial system, covers the major markets that facilitate international business, exchange rate behavior, investment and financing decisions of multinational corporations. This course provides panoramic description of the international corporate financial, and sorts out the knowledge into a logic framework. This course is also committed to providing students the ability to assess the international environment, recognize opportunities, implement strategies, assess exposure to risk, and manage the risk.

## 41. International Human Resources Management

Targeted Level:	Course Type:
SOE International Economics and Business Seniors (IUEC)	Compulsory
Prerequisite:	Instructors:
Intermediate Microeconomics, Basic Econometrics	Shihe Fu

## Reference Book:

- Edward Lazear, Michael Gibbs, 2015, Personnel Economics in Practice, 3rd Edition, Wiley.
- Shuming Zhao, et al., International Human Resource Management, 5th Edition, Cengage Learning.
- Edward Lazear, Personnel Economics for Managers.
- > Gary Dessler, Human Resource Management, 14th Edition.

## Course Description:

This course covers the principles of personnel economics and their applications to multinational corporations. It focuses on applying economic principles to understand recruitment, training, compensation, employee benefit, turnover, job design, performance evaluation, promotion, labor relations within a firm in both domestic and international settings.

## 42. International Marketing

Targeted Level:	Course Type:
SOE International Economics and Business Juniors (IUEC) & Seniors	Compulsory/Elective
Prerequisite:	Instructors:
International Trade, Theory of Industrial Organization	Kai Li

#### Reference Book:

Principles of Marketing by Kotler.

## Course Description:

Understanding consumer demand and firms' competitive behavior through the length of marketing. Deepening the understanding the globalization on firms' behavior.

#### 43. International Taxation

Targeted Level:	Course Type:
SOE Public Finance Juniors	Elective
Prerequisite:	Instructors:
Taxation, China's Taxation, International Trade	

#### Reference Book:

- > Zhu Qing, International Taxation (7th ed.), China Renmin University Press, July, 2016.
- Yang Zhiqing, *International Taxation*, Beijing University Press, January, 2010.
- Roy Rohatgi, Basic International Taxation, Beijing University Press, May, 2006.

## Course Description:

International Taxation is a newly-developing interlaced subject, which is produced under the background of economic internationalization and globalization. This course mainly introduces and analyzes what tax-related matters that all kinds of economic entities face in transnational economic activities and how countries protect their own tax benefits and promote effective allocation of cross-border capital flows and resource at the same time through domestic legislation and bilateral tax treaties. At present, this course has become a professional degree course for the undergraduates majoring in public finance. The purposes and tasks of this course is to enable students to systematically master the relevant theories of international tax and the relevant provisions of China's foreign tax system and have the abilities of analyzing international tax system, explaining the phenomenon of international tax, discussing the international tax problems and providing the corresponding countermeasures, finally makes the students have the basic quality of dealing with the complicated international tax problems and doing the work on tax law concerning foreign interests.

## 44. International Trade Practice

Targeted Level:	Course Type:
SOE International Economics and Business Juniors	Compulsory
Prerequisite:	Instructors:
International Trade, International Finance, Introduction to China's Foreign Trade	Meilian Xu

#### Reference Book:

International Trade Practice (2<sup>nd</sup> Edition) by Yao Xinchao, University of International Business and Economics, 2011.

## Course Description:

This course is about the exchange of commodities between different countries or areas. It combines the theory, policy, law and practice. It aims at students majoring in international trade, marketing and others who want to work in trade-related fields in the future. The purpose is to enable the students to understand the international rules, master the

basic trade skills and enhance the development of China's foreign trade.

## 45. International Trade: Theory and Policy

Targeted Level:	Course Type:
SOE International Economics and Business Juniors	Compulsory/Elective
Prerequisite:	Instructors:
Principles of Microeconomics, Principles of	Rui Kong

#### Reference Book:

- Robert Feenstra and Alan Taylor, *International Trade* (3<sup>rd</sup> Edition), Worth Publishers.
- Wen Hai, International Trade, Zhige Publisher.

#### Course Description:

This course introduces fundamental concepts in international trade and shows how economic analysis tools can be applied in the context of trade. Through the course, we will understand why trade happens, the determinants of trade patterns, consequences of trade on production factors, and the effects of tariff and non-tariff barriers to trade and government policies.

## 46. Introduction to Global Economy

Targeted Level:	Course Type:
SOE International Economics and Business Juniors	Elective
Prerequisite:	Instructors:
Microeconomics, International Economics	Lichao Wu

## Reference Book:

- Introduction to World Economy compiled by Marxism Theoretical Research and Construction Project Group, Higher Education Press, 2011.
- > World Economy: Theory Evolution and Policy Practice, by Mei-Bo Huang, Peking University Press, 2015.

## Course Description:

By learning this course, students can have a comprehensive understanding of basic theories and knowledge of world economy, study the formation of world economy and the development of economic globalization, know about the law of operation and the existing problems of world economy, and understand the development model of the main countries and regions. After this course, student can better understand the world economy and China's economy under the background of economic globalization. They would be able to apply what they have learned of the world economy theory to analyze various phenomena in the development of the contemporary world economy.

## 47. Introductory Probability

Targeted Level:	Course Type:
SOE Statistics & Public Finance Sophomores (IUEC)	Compulsory

Prerequisite:	Instructors:
	Hyojin Han & Wei Song

A First Course in Probability by Sheldon M. Ross, China Machine Press, 2017.

## Course Description:

This is the first course on probability theory, the part of mathematics that studies random phenomena. We model simple random experiments mathematically and learn techniques for studying these models. From a broader intellectual perspective, probability theory is one of the core subject of mathematics with its own distinct style of logical reasoning, which is important for the future study of statistics, econometrics and other courses.

#### 48. Investments

Targeted Level:	Course Type:
SOE Public Finance Juniors	Elective
Prerequisite:	Instructors:
Financial Economics	

#### Reference Book:

- Investments, 10th Edition, Zvi Bodie, Alex Kane, Alan J. Marcus, McGraw-Hill, 2014.
- Modern Portfolio Theory and Investment Analysis, 9th Edition, Edwin J. Elton, Martin J. Gruber, Stephen J. Brown, William N. Goetzmann, Wiley, 2014.

#### Course Description:

This course focuses on the dynamic process of securities portfolio management, including the construction, implementation, rebalance and performance evaluation of portfolio. It will have non-technical discussion about the financial economic principles behind portfolio management, such as modern asset portfolio theory, capital asset pricing model, arbitrage pricing model, efficient market hypothesis, and behavioral finance. The economic logic and intuition instead of mathematical models would be emphasized. It will also give an introduction to the trading strategies of hedge fund. This course would be helpful for students who want to participate in asset management and take exams like CFA.

## 49. Labor Economics

Targeted Level:	Course Type:
SOE Economics Juniors & Seniors	Elective
Prerequisite:	Instructors:
Mathematical Economics	Xingxiang Zhang

## Reference Book:

- Ronald G. Ehrenberg and Robert S. Smith, *Modern Labor Economics: Theory and Public Policy*, Pearson Education, 11th Edition, 2011.
- ➤ George Borjas, *Labor Economics*, McGraw Hill, 6th Edition, 2013.
- Campbell McConnell, Stanley Brue and Davis Macpherson, Contemporary Labor Economics, McGraw Hill, 10th Edition, 2013.

## Course Description:

This course is a professional and theoretical course for majors from labor economics and human resources management. Through this course, students will learn relevant theories related to labor market behaviors, and how to summarize empirical evidence for or against assumptions and analyze public policies and beneficial theories with cases. The first part of this course will focus on the supply and demand of labor market and the second part will be related to compensatory wage disparity, human capital investment, stuff turnover, discrimination and unemployment.

## 50. Literature Reading and Thesis Writing

Targeted Level:	Course Type:
SOE Finance Seniors (IUEC)	Compulsory
Prerequisite:	Instructors:
Finance, Introductory Econometrics	Dengta Chen

## Reference Book:

➤ Greenlaw, Steven A., 2006, *Doing Economics: A Guide to Understanding and Carrying out Economic Research*, Boston: Houghton Mifflin.

## Course Description:

This course focuses on doing research (finance/economic). Steps of the research process are: frame a good research question when given an issue or problem; literature searching and critical reading; develop an appropriate data set, data collection, manipulation and analysis; statistical methods, econometrics analysis and interpretation of those results; theorizing or conceptualizing the research topic/hypothesis; Writing as a product and as a tool of economic analysis, logic and revision; drawing and communicating conclusions to others in an oral and/or written form.

## 51. Macroeconomics

Targeted Level:	Course Type:
SOE Sophomores	Compulsory
Prerequisite:	Instructors:
Microeconomics, Principles of Economics	Xudong Tan / Mingzhi Zhang / Diyue Guo
Deference Books	

#### Reference Book:

- Western Economics, Higher Education Press and Renmin Press. (July, 2001), ISBN 978-7-04-033312-1.
- Macroeconomics, by N. Gregory Mankiw, China Renmin University Press (September, 2011), ISBN 978-7-300-14018-6.

## Course Description:

Macroeconomics is a compulsory course for college students in economics and management. Macroeconomics is a science about national economy. It involves the relationship among macroeconomic variables, laws of motion of macroeconomy, and the important role of government macroeconomic policies. It covers the following topics: short-run economic fluctuation, long-run economic growth, open-economy macroeconomics, and macroeconomic policies.

## 52. Managerial Accounting

Targeted Level:	Course Type:
SOE Finance Sophomores (IUEC)	Compulsory
Prerequisite:	Instructors:
/	Xiaoran Huang

#### Reference Book:

Managerial Accounting, 15e, Ray H. Garrison; Eric Noreen; Peter C. Brewer.

## Course Description:

This is a basic course managerial accounting meant for students with limited accounting exposure. It exposes students to the environment of accounting and its role in providing useful information for managerial decision making. By the end of the course, students should be able to appreciate the role, scope and value of information for managing business organizations towards achieving their goals.

Students will learn fundamental concepts and techniques in managerial accounting, through solving business problems. In this course, students are treated to an understanding of a broad range of the underlying accounting concepts without the need to be involved in too much detail associated with the processes.

## 53. Marketing Research

Targeted Level:	Course Type:
SOE International Economics and Business Juniors	Elective
Prerequisite:	Instructors:
Fundamental Marketing Research	Geng Zhang

#### Reference Book:

- > Carl McDaniel, Jr. & Roger Gates. Marketing Research (8th Edition). 2012 China Machine Press.
- ➤ Gilbert A. Churchill, Jr. & Dawn Lacobucci. *Marketing Research: Methodological Foundations*, 2010, Peking University Press.
- Carl McDaniel, Jr. & Roger Gates. Marketing Research Essentials (3th Edition). 2007, Publishing House of Electronics Industry.
- Alvin C. Burns & Ronald F. Bush. *Marketing Research: Online Research Applications* (4th Edition). 2009, China Renmin University Press.
- Naresh K. Malhotra, *Marketing Research: An Applied Orientation* (5th Edition). 2011, Publishing House of Electronics Industry.
- Jian Min et al., Marketing Research. 2012, China Renmin University Press.

#### Course Description:

Marketing Research is a foundation curriculum of International Business. Studying and master the methods and skills is very necessary for the undergraduates of this major because marketing decisions must be based on detailed and accurate market research.

The purpose of the course is focused on researching customer, from the point of managers to use or purchase market research information, introducing the central idea of market research and covering the role of market research in management deciding, research plan designing, and the use of statistical tools to analyze the regression data.

The specific teaching tasks include: first, understand the role of market research in management decisions and the

development trend of the market research; Second, master the process of market research; Third, grasp the method of market data collection, including the use of the data collection tools; Fourth, master data analysis tool, using all kinds of methods of mathematical statistics on the data regression analysis; Fifth, apply the learned market research methods to marketing practice.

## 54. Mathematical Analysis I

Targeted Level:	Course Type:
SOE Statistics & Finance Freshmen (IUEC)	Compulsory
Prerequisite:	Instructors:
High School Mathematics	Jianhua Lin

#### Reference Book:

- Mathematical Analysis I, by Mathematical Faculty of East China Normal University, fourth Edition, Higher Education Press, 2011
- Mathematical Analysis I & II, by Vladimir A. Zorich, Springer, 2004

## Course Description:

This course is about the first part of Mathematical Analysis. Students are required to understand the set of real numbers and function, sequence limit, functional limit, continuity of function, differential and derivative, differential mean value theorem and its application, basic axioms of real number completeness and its equivalence, and other related mathematical theories. Students are expected to use the knowledge to resolve relevant mathematical problems proficiently and lay a solid foundation for further courses.

## 55. Mathematical Analysis III

Targeted Level:	Course Type:
SOE Statistics & Finance Sophomores (IUEC)	Compulsory
Prerequisite:	Instructors:
Mathematics II, Linear Algebra	Pinghui Zhuang

## Reference Book:

- Mathematic Analysis (2<sup>nd</sup> Volume) by Faculty of Mathematics of East China Normal University, Higher Education
  Press
- Mathematical Analysis Problem Sets 2/3 by Zhou Minqiang, Science Press, 2006.

## Course Description:

This is the third part of the Mathematical Analysis. The main content is multivariable calculus, including curve integrals, surface integrals, basic field theory, integrals with parameters and Fourier series etc. This module is an elementary course which prepares the students for further studies of analysis.

## 56. Mathematical Economics

Targeted Level:	Course Type:
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SOE Economics Juniors & Seniors	Elective
Prerequisite:	Instructors:
Advanced Mathematics, Linear Algebra	Yongji Jiang

- > Chiang, A. C. and Wainwright, K., Fundamental methods of mathematical economics, 4th ed., McGraw-Hill, 2005.
- > Takayama, A., Mathematical Economics, Cambridge University Press, 1985.

## Course Description:

This course is aimed to introduce mathematical metods for economic theories, including topics of static analysis, comparative static analysis, static optimization, dynamic analysis and optimal control theory. These lectures provide learners basic mathematical tools for studing advanced economic courses and modern economic theories. Through this course, the students can seize analytical tools for mathematical economics and apply them to economic research when dealing with economic problems.

## 57. Mathematical Finance

Targeted Level:	Course Type:
SOE Finance Seniors	Compulsory
Prerequisite:	Instructors:
Calculus, Linear Algebra, Probability	Miaoxin Chen

#### Reference Book:

> Sheldon M. Ross, An Elementary Introduction to Mathematical Finance, 3rd Edition, China Machine Press, 2013.

## Course Description:

Mathematical Finance is a frontier inter-discipline combining mathematics and finance. Its core is to study the optimal choice theory of investment portfolio and the pricing theory of assets under the uncertain stochastic environment. This introductory course starts from the perspective of mathematics to discuss financial portfolio, financial decision and asset pricing. It is hoped that students could master the fundamental knowledge of mathematical finance and improve their practical skills of solving financial problems.

## 58. Microeconometrics and Its Applications

Targeted Level:	Course Type:
SOE Statistics Seniors	Compulsory
Prerequisite:	Instructors:
Calculus, Linear Algebra, Probability and Statistic Theory,	Ying Fang
Econometrics	

## Reference Book:

Introduction to Econometrics by James H. Stock and Mark W. Watson (2012), 3rd Edition, Pearson Education, Reprint Edition by Truth & Wisdom Press & Shanghai People's Publishing House (2013).

#### Course Description:

As an introductory course of microeconometrics, this course aims to help students understand the basic theories and methods of microeconometrics and integrate the real problems with theory. In this course, we will discuss the fundamental models and methods of microeconometrics, including instrumental variable model, panel data model, difference-in-differences model, and policy evaluation methods.

After this course, students are expected to understand the basic theories and methods of microeconometrics, be familiar with the application of statistics software to microeconometrics modelling and data analysis and be equipped with basic skills in writing a thesis.

## 59. Operation and Management of Transnational Corporations

Targeted Level:	Course Type:
SOE International Economics and Business Seniors	Elective
Prerequisite:	Instructors:
Microeconomics, Macroeconomics, International	Guanhong Jiang
Economics	

#### Reference Book:

- Operation and Management of Transnational Corporations (2<sup>nd</sup> Edition) by Lu Jinyong et al., China Machine Press
- Operation and Management of Transnational Corporations by Lin Kang, University of Economics and Business Press, 2006.

## Course Description:

This course is one of the core courses in International Business. The object of this course is to develop students' ability to analyze economic phenomena based on the perspective of transnational corporations. The course is mainly related to the basic knowledge of transnational corporations, covering issues such as basic theory, operation and management, technology transfer, R&D and corporation finance. The task of this course is to help students to obtain the basic concepts, principles and tools of transnational corporations and to analyze foreign direct investment issues using what they have learned.

## 60. Operational Research

Targeted Level:	Course Type:
SOE Statistics Juniors	Elective
Prerequisite:	Instructors:
Linear Algebra, Advanced Mathematics	Hongli Guo

## Reference Book:

Operational Research (4<sup>th</sup> Edition), Tsinghua University Press, 2013.

## Course Description:

Operational Research is a basic course for economics and management majors. By adopting mathematical methods to coordinate various limited resources of an economic management system, you can provide the optimal

plan for decision makers to ensure the effective and scientific management. Through this course, you can learn the basic concepts, theories, and methods of operation research that would be frequently used when making economic management decisions, so as to grasp the necessary theoretical foundation of modern management theories and be capable of adopting quantitative methods to solve real problems.

## 61. Ordinary Differential Equation

Targeted Level:	Course Type:
SOE Statistics Juniors (IUEC)	Compulsory
Prerequisite:	Instructors:
Mathematical Analysis, Advanced Algebra	Tao Xiong

#### Reference Book:

- Wang Gaoxiong, Zhou Zhiming, Zhu Siming & Wang Shousong: *Ordinary Differential Equation* (3<sup>rd</sup> Edition), China Higher Education Press, 2006.
- > C. Henry Edwards & avid E. Penney 编:常微分方程基础(英文版·原书第五版),机械工程出版社,2005。

## Course Description:

Based on calculus, this course aims to help students understand the origin and application (especially in mathematics) of ordinary differential equation. It will discuss the types of first order ordinary differential equation and relevant solutions, methods of reduction of order for special equations of higher orders, existence-uniqueness theorem for first-order ordinary differential equations, continuation of solutions, theorem on continuous dependence of solutions on initial value and parameter, existence-uniqueness theorem for first-order ordinary differential equation systems, solution-space structure of homogeneous linear differential equation systems, solution of ordinary constant coefficient homogeneous linear differential equation systems, solution of nonhomogeneous linear differential equation systems (variation of constants) and solution of ordinary linear equations of higher orders.

## 62. Panel Data Analysis

Targeted Level:	Course Type:
SOE Economics Juniors & Seniors	Elective
Prerequisite:	Instructors:

## Reference Book:

- > Econometric Analysis of Cross Section and Panel Data 2nd Edition by J. M. Wooldridg.
- Analysis of Panel Data (2003) by Cheng Hsia.
- Mostly Useful Science of Economics by Zhao Xiliang, Peking University Press, 2017.

#### Course Description:

Based on the course of Econometrics, this course will discuss methods for cross-sectional data and panel data. It aims to help students understand the basic econometric methods of economic analysis, and learn how to apply modern empirical analysis methods to economic problem research. Additionally, this course will discuss about the usage and programming methods of Stata.

## 63. Partial Differential Equation and Numerical Method in Finance

Targeted Level:	Course Type:
SOE Finance Juniors	Elective
Prerequisite:	Instructors:
Calculus, Probability and Statistics Theory	Qingxia Li

#### Reference Book:

- Mathematical Modelling and Methods of Option Pricing, by Lishang Jiang, Publisher: Higher Education Press, ISBN 9787040224870.
- Financial Calculus: An Introduction to Derivative Pricing, by Martin Baxter & Andrew Rennie, Publisher: Cambridge University Press (2003), ISBN 0-521-55289-3.
- A Course in Financial Calculus, by Alison Etheridge N.L, Publisher: Cambridge University Press (2002), ISBN 0-521-81385-9.

## Course Description:

Partial Differential Equation and Numerical Method in finance provides a striking example of successful collaboration between financial academia and industry. The course introduce PDE theory and its applications to pricing problems for financial derivatives. Main content include: Binomial trees and discrete parameter martingales, Brownian motion, Stochastic Calculus, The Black-Scholes Model, PDE theory, numerical simulation of PDE and so forth. We intend for students to learn how to deduce PDE and risk neutral idea to financial derivatives pricing.

#### 64. Personnel Economics

Targeted Level:	Course Type:
SOE Economics Juniors & Seniors	Elective
Prerequisite:	Instructors:
Microeconomics, Labor Economics, Human Resources	Jian Zhao
Management	

#### Reference Book:

- > Edward Lazear: Personnel Economics For Managers
- > Yang Weiguo & Tang Kuang: Human Resources Economics.

## Course Description:

This course aims to analyze the economic problems in human resources management and the effective selection and incentive strategies during the personnel management of organizations under the assumption of rational person, profit maximization and individual free selection. Based on the knowledge, students can test and use general economic principles and methods and understand better the rules of human resources management.

## 65. Political Economics (Capitalism)

Targeted Level:	Course Type:
SOE Freshmen	Compulsory

Prerequisite:	Instructors:
1	Yiming Wang

Introduction to Marxist Political Economics (Third Edition), People's Publishing House, June 2017

#### Course Description:

The Marxist Political Economics course focuses on cultivating students' professional ability, consolidating students' economic theoretical foundations, and improving their ability to use basic theoretical knowledge to analyze problems and solve problems. Through the teaching of this course, students can understand and master the general law of market economy development, the law of the emergence and development of modern capitalist economic system, understand the basic national conditions of China's primary stage of socialism and the basic framework of China's socialist market economic system. Grasping the basic concepts, basic principles and basic methods of political economics, we can use the theory we have learned to explain economic phenomena and the practice of China's economic reforms, to achieve theoretical and practical, to study in other disciplines and to engage in management and teaching in the future.

## 66. Principles of Accounting

Targeted Level:	Course Type:
SOE Finance, Public Finance & International Economics and Business Freshmen (IUEC)	Compulsory
Prerequisite:	Instructors:
/	Xiaoran Ni / Juanjuan Huang

## Reference Book:

Fundamental Accounting Principles by John Wild et al., China Renmin University Press, 2015.

#### Course Description:

This course covers principles of accounting, especially financial accounting. The main focus will be concepts, methods, and uses. The objectives of the course are:

To help students develop a sufficient understanding of the basic concepts and principles underlying accounting so that they can apply the concepts in different situations.

To train students in accounting terminology and methods so that they can interpret, analyze and evaluate financial statements currently published in corporate annual reports.

To prepare students for further study such as intermediate accounting, corporate finance and financial statement analysis.

## 67. Principles of Economics

Targeted Level:	Course Type:
SOE Freshmen	Compulsory
Prerequisite:	Instructors:
/	Xiaoyi Han / Ye Liu

- Western Economics by Wu Yifeng & Yang Pengfei, People's Publishing House.
- Principles of Economics (7th Edition) by N. Gregory Mankiw, Cengage Learning (Published on 2015).
- Microeconomics (10th Edition) by Michael Parkin, published by Prentice Hall.

#### Course Description:

This course serves as an introduction to economics. It will not only prepare you with basic Microeconomics concepts such as opportunity cost, demand and supply, market equilibrium, elasticity and different market structures, but it will also give you an overview of basic Macroeconomics issues, including Gross Domestic Product (GDP), investment, inflation, money, unemployment, etc. From this course, you will understand how to use economics to analyze real-world situations.

# 68. Principles of Management

Targeted Level:	Course Type:
SOE International Economics and Business Sophomores (IUEC)	Compulsory
Prerequisite:	Instructors:
/	Jihong Lin

# Reference Book:

- Stephen Robbins, Principles of Management, China Renmin University Press, 2016.
- Charles Hill, Principles of Management, McGraw-Hill Irwin, 2006.

#### Course Description:

The course covers the basic theories, principles, process and methodologies of management. It mainly includes the formulation and implementation of strategies, the operation and control of enterprises, organizational structure and enterprise culture, leadership, human resources management and innovation management. The course is to cultivate students' critical and independent thinking and the abilities of solving problems.

# 69. Principles of Marketing

Targeted Level:	Course Type:
SOE International Economics and Business Juniors	Elective
Prerequisite:	Instructors:
Economics, Management	Qiguo He

### Reference Book:

- Principles of Marketing by Philip Kotler and Gary Armstrong, translated by Lou Zun, China Renmin University Press, 2015.
- Marketing Management by Philip Kotler, China Renmin University Press.
- Marketing by Philip Kotler and Gary Armstrong, Huaxia Publishing House.
- Modern Marketing by Su Yamin, Capital University of Economics & Business Press.

# Course Description:

This course is based on economics, behavioral science and modern management. It studies the marketing activities and objective rules of products, pricing, venues and promotion made by enterprises to satisfy consumers' real and potential demands in specific marketing environment. This course is comprehensive and practical.

Its aim is to help students understand the basic theories of marketing and have a comprehensive analysis on real marketing activities, so as to enhance their marketing awareness and capacities.

# 70. Principles of Statistics

Targeted Level:	Course Type:
SOE Sophomores	Compulsory
Prerequisite:	Instructors:
Advanced Mathematics, Economics	Jinbo Wang / Xiuyan Huangpu

#### Reference Book:

- Statistics by Chen Zhenzhen, Xiamen University Press.
- > Statistics by Huang Liangwen, China Statistics Press.

### Course Description:

This course is one of the core curriculums of Economy and Management. It is also a very important basic specialty course for the students who major in statistic-related specialties. Students are expected to learn the basic theories and methods such as method of data collection and investigation, method of data processing, Statistical Indicator System, basic thought and building of statistical model and statistical comprehensive evaluation method and its application. Through learning this course, students can learn how to use statistical methods to analysis and solve practical problems in the economics and management.

# 71. Principles of Taxation

Targeted Level:	Course Type:
SOE Public Finance Juniors	Elective
Prerequisite:	Instructors:
Principles of Economics, Macroeconomics,	Genqiang Lei
Microeconomics, Public Economics, China's Public	
Finance	

### Reference Book:

- Principles of Taxation by Yang Bin, Higher Education Press, 2008.
- Taxation.
- Taxation Research.
- China's Taxation.
- China's Taxation Report.

# Course Description:

This course is a basic course for undergraduate students from Department of Public Finance. It aims to help students systematically understand basic theories and knowledge of taxation, train them how to consider economic

problems with taxation, and improve their taxation analysis and problem solving abilities.

# 72. Probability and Mathematical Statistics

Targeted Level:	Course Type:
SOE Finance, Public Finance, Economics & International	Compulsory
Economics and Business Sophomores	
Prerequisite:	Instructors:
Advanced Mathematics, Linear Algebra	Shoufeng Huang / Pingsheng Dai

#### Reference Book:

- Probability and Statistics, Li Jie et al.., Southwestern University of Finance and Economics Press, 2013.
- > Probability and Statistics, Mao Shisong et al., Higher Education Press, 2012.

### Course Description:

This course is a basic compulsory course for students of all majors in School of Economics. It mainly cultivates students' understanding of random phenomena and helps them master the basic principles of probability and statistical thinking, improves their ability of random thinking, and the ability to solve practical problems. It can enrich and broaden their mathematical theory knowledge and thinking methods, and lay the foundation for further economics study.

# 73. Probability Theory

Targeted Level:	Course Type:
SOE International Economics and Business, Statistics & Finance Juniors	Compulsory/Elective
Prerequisite:	Instructors:
Mathematic Analysis	Xuexin Wang

### Reference Book:

- Ross, Sheldon. A First Course in Probability. 8th ed. Upper Saddle River, NJ: Prentice Hall, 2009. ISBN: 9780136033134.
- George Casella, Roger L. Berger. Statistical Inference. 2nd ed. Duxbury, 2002.

# Course Description:

This is the first course on probability theory, the part of mathematics that studies random phenomena. We model simple random experiments mathematically and learn techniques for studying these models. From a broader intellectual perspective, probability theory is one of the core subject of mathematics with its own distinct style of logical reasoning, which is important for the future study of statistics, econometrics and other courses.

# 74. Public Policy Analysis

Targeted Level:	Course Type:
SOE Public Finance Seniors	Elective

Prerequisite:	Instructors:
Political Economics, Western Economics (Micro &	Jianhua Zeng
Macro), Public Finance	

- Public Policy Analysis by Chen Qingyun, Peking University Press, April 2011, Second Edition.
- > Public Policy Analysis by Chen Zhenming, China Renmin University Press, October 2003 Edition.

### Course Description:

Public policy analysis is a course that introduces the basic theories and principles of public policy. Its contents mainly include public policy basic theory, public policy analysis method and technology, and China's public policy practice. The purpose of this course is to enable students to grasp comprehensively the theoretical system of public policy, and to flexibly apply their knowledge to achieve the goal of enhancing policy awareness and enhancing policy sensitivity. This course is specially designed for students who like public policy. The world, the policy, the wisdom, the insight, the interest will take you at a new height to surpass yourself.

#### 75. Real Estate Economics

Targeted Level:	Course Type:
SOE Economics Juniors & Seniors	Elective
Prerequisite:	Instructors:
1	Tao Ji

# Reference Book:

- Real Estate Economics, by Zhangt Hong, Tsinghua University Press Reprint Edition (August, 2008), ISBN: 978-7302109402.
- References Real Estate Investment Analysis, by Zhou Xiaoping, Publisher: Tsinghua University Press (November, 2011), ISBN:978-7302256519.

### Course Description:

This course is to acquaint students with the knowledge of real estate economic operation, investment and management, and to serve the practical work related to real estate in the future.

Real estate economics is an applied economics course, mainly trains the student to apply modern economics theory and method for the analysis of real estate laws and characteristics of economic operation, in view of the real estate price formation mechanism, fluctuation law, market characteristics and laws and regulations in a full range of scanning and perspective, grasp the real estate operation rule and the characteristics of investment in real estate market management, forecast and control has full mastery and understanding, lay the foundation for the future real estate related practice and preliminary form controls the ability of real estate investment analysis.

# 76. Regional Economics

Targeted Level:	Course Type:
SOE Economics Juniors & Seniors	Elective
Prerequisite:	Instructors:

Fundamental Economics	Tao Song
Poforonco Pook	

- Regional Economics by Roberta Capello, translated by Chen Fei, et al., Economy & Management Publishing House, 2014.
- The Spatial Economy: Cities, Regions and International Trade, by Masahisa Fujita, Paul Krugman, and Anthony J. Venables, translated by Liang Qi, China Renmin University Press, 2013.
- New Regional Economics by An Husen, Dongbei University of Finance & Economics Press, 2009.
- Modern Regional Economics by Wei Houkai, Economy & Management Publishing House, 2006.

The current regional economics considers space as an economic resource. As an independent manufacturing factor, space is also a core fundamental factor to build local manufacturing systematic competitiveness. This course will discuss regional economics from four perspectives, including regional theory (actual spatial measurement), regional growth theory (homogenous and abstract space), local development theory (space of diversified relationships) and regional growth theory (space of diversified forms). It will integrate the theories and model innovation of regional economies into a unified framework.

# 77. Risk Management

Targeted Level:	Course Type:
SOE Statistics Seniors	Elective
Prerequisite:	Instructors:
/	Yonghong Xu

# Reference Book:

- Risk Management (4th Edition) by Xu Jinliang, China Finance Publishing House, 2011.
- Financial Risk Measurement and Management by Wang Mingtao, Shanghai University of Finance and Economics, 2008.
- Risk Management and Insurance, China Higher Education Press, 2007.
- Risk Management and Insurance by Trieschmann. J. S., Gustavson. R. E., Hoyt. D. W., China Higher Education Press, 2005.
- Options, Futures, and Other Derivatives (7th Edition) by Hull, J., Pearson Education, 2010.

# Course Description:

This module introduces the concept and methods of risk and risk management. Basic risk identification methods such as audit table model, flow chart model, and fault tree analysis will be covered. The Mathematical method of risk analysis such as normal distribution and Poisson distribution, and insurance such as insurance pricing model, individual risk model and collective risk model will be studied. The financial risk management instruments such as forwards, futures, options, and swaps will be covered. Valuation models for forwards and the Black-Scholes model for options will be studied. The financial risk management methods such as duration, VaR, Credit matrix model will be studied. The risk management decision models will be discussed.

# 78. Sampling Techniques

Targeted Level:	Course Type:
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SOE Statistics Juniors	Elective
Prerequisite:	Instructors:
Probability Theory, Mathematical Statistics	Yan Shen

- Applied Sampling Techniques (2<sup>nd</sup> Edition) by Li Jinchang, Science Press.
- > Sampling Techniques by Jin Yongjin, Du Zifang & Jiang Yan, China Renmin University Press.

### Course Description:

Sampling Techniques studies the methodology of random phenomena. Through this course, students can use the theory and methods of inferential statistics to design sampling and to evaluate the total number of subjects. They can also have a hypothesis testing on the unknown totality and use the hypothesis testing to resolve real problems.

### 79. Securities Investment

Targeted Level:	Course Type:
SOE Statistics Juniors	Elective
Prerequisite:	Instructors:
Advanced Mathematics, Economics	Youliang Ye

### Reference Book:

- > Securities Investment (4th Edition) by Wu Xiaoqiu, China Renmin University Press, 2014.
- > Securities Investment Analysis (6th Edition) by Zhao Xijun & Wei Jianhua, China Renmin University Press, 2015.

# Course Description:

This course is a fundamental course for economics and management students. It focuses on general financial investment theories and methods and their application in securities market. Students will be guided to think about problems related to theory and real securities investment. It aims to help students understand basic theories and analysis methods of securities investment and teach them the methods and skills for securities analysis. Through course learning and virtual securities investment, students will comprehend the investment principles and practice their analysis and operation abilities in securities investment. In this course, the teacher will also use cases to better explain ideas.

# 80. Seminar on Macroeconomics

Targeted Level:	Course Type:
SOE Economics Juniors & Seniors	Elective
Prerequisite:	Instructors:
Macroeconomics, Economic Growth, Monetary	Qianqian Gao
Economics	

### Reference Book:

Macroeconomics by Stephen D. Williamson, China Renmin University Press, 2015.

### Course Description:

Based on courses like Macroeconomics, Economic Growth and Monetary Economics, this course builds models with the principles of microeconomics and analyzes macroeconomics. It will discuss one-period model; economic growth; savings, investment and government deficit; currency and economic cycle; international macroeconomics; currency, bank and inflation. Additionally, it will teach students how to write an economic thesis.

#### 81. Seminar on Marxian Economics

Targeted Level:	Course Type:
SOE Economics Juniors & Seniors	Elective
Prerequisite:	Instructors:
Marxist Political Economy, Microeconomics,	Yongji Jiang
Macroeconomics	

#### Reference Book:

Roemer, J. E., Free to lose, MIT Press, 1988.

#### Course Description:

This course is aimed to introduce some recent delevelopments of Matheatical Marxian Economics and Analytical Marxism. By using fundamental tools of mathematical analysis, we formalize some Marx's key concepts in his political economy, and try to provide a new perspective and method for studying Marxian Political Economy. We, on one hand, try to construct a platform for comparing Marxian economics and mainstream economics, and on the other hand, to provide new research perspectives and methods for traditional Marxist political economy. And eventually, we explore the frontier and directions on this subject.

# 82. Tax Economics

Targeted Level:	Course Type:
SOE Public Finance Juniors	Elective
Prerequisite:	Instructors:
Microeconomics, Macroeconomics	Ye Chen

# Reference Book:

- Salanie, Bernard, 2011, The Economics of Taxation (2nd ed.), the MIT Press.
- Hindriks, Jean, Gareth D. Myles, 2013, Intermediate Public Economics (2nd ed.), the MIT Press.
- GAMS, User's Guide
- Rosen, Harvey S., Ted Gayer, 2011, Public Finance (9th ed.), the McGraw-Hill Companies, Inc.
- Slemrod, Joel, Jon Bakija, 2008, Taxing Ourselves: A Citizen's Guide to the Debate over Taxes (4th ed.), the MIT Press.

# Course Description:

This is an advanced undergraduate level introduction to economic analysis of taxation. It deals primarily with both positive aspects of taxation, such as distributional effects of taxation and policies, and normative analyses of taxation, such as optimal income and commodity taxes. In addition, computational skills will be lectured in classes so that theoretical models which are qualitative in nature can be tested numerically and help you consider and design policies in a more realistic but complicated economic environment. GAMS (General Algebraic Modeling System), that is

currently one of the most popular and sophisticated computer programs among computational economists, will be introduced in the course. The aim of the course is to acquaint students with key questions in the economics of taxation, and to equip them to carry out their own research using quantitative methods in the field.

# 83. Undergraduate Thesis Writing

Course Type:
Elective
Instructors:
Yiming Wang

#### Reference Book:

- XMU Undergraduate Thesis (Design) Standards
- Eviews User Guide and Case Study by Zhang Xiaotong, China Machine Industry, 2008.

### Course Description:

This course is a sequel course of Undergraduate writing course. Its preliminary requirements include: 1) the successful completion of pre-requisite courses; 2) the successful identification of a research question, i.e., a thesis topic; and 3) the completion of a preliminary thesis draft in fall 2018.

The goal of this course is to teach students how to revise and polish their preliminary draft and complete their theses in a satisfactory manner and according to academic standards. In order to achieve this goal, this course is designed as follows:

First, the course introduces students every part of the thesis and required files and timetable.

Second, the course introduces students to the ethics, especially we will stress on the harmfulness of plagiarism.

Third, we will give students guidance and suggestions according to the elements and the structure of thesis writing. In terms of ethics. In terms of element, we will focus on the academic standards of citation. Formatting issues of the thesis will also be discussed. In terms of the writing structure, we will discuss the writing of introduction, literature review, data section, analysis, conclusion, and abstract one by one. This course provides a revision structure for the students through a series of take-home assignments and deadlines, so that students can make progress on their theses through frequent production of written materials.

Fourth, the course provides for students an opportunity to orally present their work and receive feedback from instructor and peers.

### 84. Value Strategy

Targeted Level:	Course Type:
SOE Finance Seniors (IUEC)	Elective
Prerequisite:	Instructors:
/	Ming Gu

#### Reference Book:

Z. Bodie, A. Kane, A.J. Marcus, and Ravi Jain (BKMJ), 2012, *Investments*, 9th Edition Mc-Graw Hill Education. ISBN 978-007-111-239142-5.

# Course Description:

Buffett is a well-known value investing master. Some scholars have found that Buffett's success is largely related to his investment style. Buffett tends to choose cheap, low-risk, high-quality stocks, that is, a stable value investment strategy. This course will talk about the financial concepts that students have learned before and learn the practicality of value investment strategies in the Chinese market through empirical research.

# **SOE Undergraduate Programs (Spring Semester)**

### 1. Advertising

Targeted Level:	Course Type:
SOE International Economics and Business Juniors	Elective
Prerequisite:	Instructors:
Marketing Research	Geng Zhang

#### Reference Book:

- Lv Wei. Advertising, 2014, Beijing Normal University Press.
- Li Dongjin. Modern Advertising. 2006, China Development Press.
- W.R.Lane, J.T.Russell. Advertising: A Framework, 2003, Tsinghua University Press.
- ➤ He Xiumeng. Modern Advertising, 2005, Fudan University Press.
- > William Wells, John Burnette, Sandra Moriarty. Advertising Principle and Practice, 2007, Peking University Press.

#### Course Description:

Advertising is one of the basic courses in international business major, which enables students to comprehend the basic elements of advertising and relationship between advertising and marketing, so that they will master the basic principles of advertising, know the impact on the target audience with advertising, and consequently, grasping the advertising decision strategies, advertising information strategy, advertising media strategy and advertising creativity strategies completely and effectively.

The purpose of this course is to enable students to understand the design and production processes of advertising, master the methods in ad performance assessment and learning how to figure out budget, strategy development methods and organization and management principles of advertising in the practice of marketing. With the help of teaching and practice, students are capable of applying the knowledge to practical business problems, and makes the ad more in line with the corporate' marketing objectives.

Course syllabus: Firstly, to understand the basic principles of advertising and the relationship between integrated marketing theory and advertising; Secondly, be familiar with the spreading principles and strategy principles of advertising; Thirdly, master the advertising information policy and analysis of advertising media strategy; Fourthly, be proficient in advertising goals and methods of budget operation as well as ad performance assessments; Fifthly, apply the theoretical knowledge advertising into ad planning practices.

# 2. Bayesian Statistics

Targeted Level:	Course Type:
SOE Statistics Juniors	Elective
Prerequisite:	Instructors:
Probability and Statistics	Changquan Huang

### Reference Book:

- Mao Shisong (2012) Bayesian Statistics (2<sup>nd</sup> Edition), China Statistics Press.
- ➤ Karl-Rudolf Koch (2007) Introduction to Bayesian Statistics, 2<sup>nd</sup> ed, Springer

Bayesian statistics is very distinctive and important part of modern statistics. The point is to take the parameter as a random variable, using historical information to determine the prior distribution, then using samples to obtain the posterior distribution, and then using the posterior distribution to make various statistical inferences. This course introduces basic theory and methodology of Bayesian statistics. The objective is to make students understand and master ideas and methods of Bayesian statistics in order to lay a good foundation for applying Bayesian statistics in various fields.

#### 3. Behavioral Finance

Targeted Level:	Course Type:
SOE Finance Seniors	Elective
Prerequisite:	Instructors:
Macroeconomics, Microeconomics, Finance, Investment	Shan'ang Chen

#### Reference Book:

- > Advances in Behavioral Finance by Richard H. Thaler & Robert J. Shiller, China Renmin University Press, 2018
- Behavioral Finance: Psychology, Decision-Making, and Markets by Lucy F. Ackert & Richard Deaves, China Machine Press, 2012
- > A Random Walk Down Wall Street by Burton Gordon Malkiel, China Social Sciences Press, 2012

#### Course Description:

This course discusses hypothesis of rational person and limited rational person, traditional financial theories and capital asset pricing, EMH and interest arbitrage, prospect theory and market efficiency, overreaction and under-reaction, herd behavior and contrarian investment, market sentiment and price behaviors, etc. it aims to help students understand basic principles, theories, concepts and methods of personal and group behaviors and lay a solid foundation for the understanding and participation in capital market.

# 4. Business Communication and Culture II

Targeted Level:	Course Type:
SOE IUEC Students	Compulsory
Prerequisite:	Instructors:
/	Roslyn Bowers / H. A. Holden / Katherine Anne Brown

#### Reference Book:

- Essentials of Management: An International Perspective by H. Koontz, Heinz Weihrich
- International Management: Culture, Strategy, and Behaviour by F. Luthans, J. P. Doh
- > International Business by Wild, Wild & Han
- > Business Communication by Madhukant Jha Business Communication by Scot Ober

#### Course Description:

Koontz & Weihrich, in their book Essentials of Management, state "the purpose of communication in an enterprise is to effect change – to influence action toward the welfare of the enterprise." And John Hooker of Tepper School of Business at Carnegie Mellon University says, "Communication is fundamental in business, because business is a

collaborative activity."

- This course, Business Communication and Culture seeks, among other things, to give students hands on experience in how businesses operate and function through 1"the sharing of information between people within and outside the organization that is performed for the commercial benefit of the organization."
- It seeks to explore and deepen the students' understanding and knowledge of not only the field of communication, but also, in a broader sense, how communication relates to the international business society and its connection to bringing together the cultures of the East and Western world, by initiating an interactive communicative process of sharing knowledge and information and creating experiential opportunities, which will give students the opportunity to make and create meaning.
  - Students will be given the opportunity to have hands on Communication Skills
    - o Including: Portfolios, Memos, Status Reports, Time management, Management Principles)
    - o Final Exam: Written ( Presentation for midterm)

# 5. Business Communication and Etiquette

Targeted Level:	Course Type:
SOE International Economics and Business Sophomores (IUEC)	Elective
Prerequisite:	Instructors:
/	Roy Meek

#### Reference Book:

- > Excellence in Business Communication (Thill and Bovee).
- Competent Communication (O'Hair).
- Communication Mosiacs (Wood).
- > Business and Administrative Communication (Locker).

### Course Description:

This course focuses on cross-cultural business communication with reference to the significance of manners and etiquette as a powerful way crossing cultural barriers and building good business relationships.

The aims are to develop students' cross-cultural sensitivity in increasingly diverse business environments.

# 6. China's Public Finance

Targeted Level:	Course Type:
SOE Finance Juniors	Elective
Prerequisite:	Instructors:

# Reference Book:

Public Finance by Zhang Xin, Science Press, 2010.

# Course Description:

This course is an introduction to the basic knowledge of China's public finance and taxation. Its aim is to help students better understand public finance and taxation, and lay a solid foundation for future career in this field.

### 7. Corporate Finance

Targeted Level:	Course Type:
SOE Statistics & Finance Juniors	Elective
Prerequisite:	Instructors:
Principles of Accounting	Yongqiang Zhou / / Weibin Huang / Zhigang Qin

#### Reference Book:

- Corporate Finance (2<sup>nd</sup> Edition) by Zhou Yongqiang, Xiamen University Press.
- Principles of Corporate Finance, 9th, Richard A. Brealey, Stewart C. Myers, Franklin Allen, Mcgraw-Hill, 2008
- Financial Markets and Corporate Strategy, 2nd, Mark Grinblatt, Sheridan Titman, Mcgraw-Hill, 2002
- Corporate Finance, 11th Edition, Stephen A. Ross et al., Mcgraw-Hill, 2017
- > CFA Program Curriculum Level 1 Book 4: Corporate Finance by CFA Institute

#### Course Description:

This course focuses on the basic knowledge of corporate financial management. It aims to help students grasp the basic theories and methods of investment, financing, current assets management, dividend policy, and financial budget and analysis in corporate financial management. It also trains students' abilities of solving real problems in this field.

# 8. Data Structure and Algorithm Analysis

Targeted Level:	Course Type:
SOE Statistics Sophomores (IUEC)	Elective
Prerequisite:	Instructors:
C Programming Language	Yangming Huang & Jinbo Wang

#### Reference Book:

- ALLEN WEISS MARK: *The Data Structure And Algorithm Analysis -- C Language Description* (Second Edition), China Machine Press, 2013 Courseware.
- > Shen Hua, etc.: Data Structure And Algorithm: C Language Description (Second Edition), China Machine Press, 2015.
- Xiong Yue Shan, Zhu En: Data Structures And Algorithms, Tsinghua University Press, 2013.

### Course Description:

Data structure and algorithm analysis is mainly discussed how to effectively organize data, presenting data and processing data, and how to design the correct algorithm and evaluation of the efficiency of the algorithm, which in the application of computer to solve the problem. It is a branch of the relationship between computer science in a study of data elements, is a professional basic course of software design and information management and other related disciplines, the basic knowledge of computer software and staff from related industry should have.

This course introduces the common data structures and their applications, commonly used data processing techniques and algorithms, as well as the basic algorithm for estimating the efficiency of the algorithm.

### 9. Derivatives Analysis and Trading

Targeted Level:	Course Type:
SOE Finance Juniors & Seniors (IUEC)	Compulsory/Elective
Prerequisite:	Instructors:
Probability, Calculus, Financial Mathematics, Financial	Peilin Xie
Economics	

Options, Futures, and Other Derivatives, John Hull.

#### Course Description:

Based on the John Huall's course, this course will also discuss theories and practices through WIND System and GTA Virtual Trading System. It includes futures, options, derivatives, pricing models of asset securitization, program compiling of pricing models and practical trading.

# 10. Development Economics

Targeted Level:	Course Type:
SOE Economics & International Economics and Business Juniors & Seniors	Elective
Prerequisite:	Instructors:
Macroeconomics, Microeconomics, Political Economics	Qiyou Guo

# Reference Book:

- Michael P. Todaro, Stephen C. Smith, Economic Development (11th ed.), Addison-Wesley, 2012.
- Gustavo T. Rocha, editor. Development economics research trends, New York: Nova Science Publishers, Inc., c2008.
- ➤ Deaton, Angus, *The Analysis of Household Surveys: A Microeconomic Approach to Development Policy,* Johns Hopkins University Press, 1997.

# Course Description:

The objective of the course is to offer students an introduction to the process and special issues of economic development in the developing countries. The course provides conceptual framework and methodology to understand the relationship and distinction between the development theories/issues. It will include economic development of principles and concepts, such as classic theories of economic growth and development, contemporary models of development and underdevelopment. The course will cover domestic development problems and policies, such as poverty, inequality, and development, population growth and economic development, the theory and policy of urbanization and rural-urban migration, education and health in economic development, agricultural transformation and rural development, the environment and development, international trade theory and development strategy, balance of payments, debt and financial crises, foreign finance, investment and all other economic theories/issues.

### 11. Econometrics

Targeted Level:	Course Type:
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SOE Finance, Economics, Public Finance & International Economics and Business Sophomores	Compulsory
Prerequisite:	Instructors:
Economics, Advanced Mathematics, Probability,	Lichao Wu
Mathematical Statistics	

- > Introductory Econometrics: A Modern Approach by Jeffrey W. Wooldrige, Tsinghua University Press, 2014.
- Introduction to Econometrics by James H. Stock & Mark M. Waston, China Renmin University Press, 2014.

### Course Description:

This course adopts economic theories, mathematics, and statistical inference to analyze economic phenomena. It describes relationship among economic variables through econometrics models and provides theoretical guidance and analysis methods introduction on econometrics analysis. It covers basic theories and methods including simple regression analysis, multivariate regression analysis, hypothesis testing, dummy variable regression analysis and heteroscedasticity. This course aims at explaining basic principles of econometrics and helping students understand econometrics techniques through case study and use econometrics software and models to analyze mathematical relationships in real economic phenomena.

# 12. Economic History of China (Modern)

Targeted Level:	Course Type:
SOE Economics Sophomores	Compulsory
Prerequisite:	Instructors:
1	Jianhua Jiao / Jianan Li / Ruobing Liang / Dingzhong
	Zhang

#### Reference Book:

> China's Modern Economic History by Zhao Jinzhu, Nankai University Press, 2010.

### Course Description:

This course is about the development process of China's national economy. It studies the economic development and social transition of China from the perspective of economic revolution and institutional transition, and analyzes the uniqueness and reform of China's ancient economy, the development of modern economy, the attempt of different economic systems after 1949 and the formation of reform and opening up.

# 13. National Economy

Targeted Level:	Course Type:
SOE International Economics and Business Juniors	Elective
Prerequisite:	Instructors:
World Economy, Economic History, International Economic History	Jinguang Hou

- > The Socialist System by Janus Komai, Central Compilation & Translation Press.
- International Comparison of Economic Transition by Feng Shunhua et al., Economic Science Press.

### Course Description:

This is a theoretical course to study the history, present situation and future of Russian economy. Its purpose is to enable students to know about the overall situation of the Russian economy, so as to make a clear prediction of the future direction of the Russian economy.

#### 14. Environmental Economics

Targeted Level:	Course Type:
SOE Economics Juniors & Seniors	Elective
Prerequisite:	Instructors:
Macroeconomics, Microeconomics	Ruojuan Zheng

#### Reference Book:

- ➤ Environmental Economics (2<sup>nd</sup> Edition) by Charles D. Kolstad, China Renmin University Press, 2016
- The Economics of the Environment by Peter Berck and Gloria Helfand, China Renmin University Press, 2013
- Environmental and Natural Resource Economics by Tom Tietenberg and Lynne Lewis, China Renmin University Press, 2016

#### Course Description:

Environmental Economics is a new borderline discipline which adopts modern economics methods to study the environmental resources allocation. This course mainly discusses the generation and development of environmental problems, the reasonable use of environmental resources and pollution abatement, and points outs that when solving environmental problems, you should evaluate the environmental resources first.

The aim of this course is to help students understand the characteristics of environmental economics, especially its theoretical origins, basic theories, economics reasons of environmental problems, economic policies and methods for environmental problems and relationship between specific environmental issues and economic development.

### 15. Financial Economics

Targeted Level:	Course Type:
SOE Sophomores	Compulsory
Prerequisite:	Instructors:
Principles of Economics, Microeconomics,	Wenbin Xu

#### Reference Book:

- ▶ Bodie, Z., R. Merton & D. Cleeton, *Financial Economics* (second Edition), Pearson Education, Inc. Publishing as Prentice Hall, 2009.
- Besley S. & E. Brigham, *Principles of Finance*, Peking University Press.
- > Zhang Yisen & Xu Wenbin, Finance, China Higher Education Press, 2017.

This course divides the financial system from the functional perspective. It includes the basic introduction to finance and financial system, the allocation of time and resources, valuation model, risk management and portfolio theory, asset pricing, and corporate finance. In this course, students can quickly understand the logical relationship among each part of finance by adopting the unified analytical framework to investigate financial problems.

# 16. Financial Statement Analysis

Targeted Level:	Course Type:
SOE Finance & Public Finance Juniors	Compulsory/Elective
Prerequisite:	Instructors:
Principles of Accounting	Qin Zhigang

#### Reference Book:

- Easton, McAnally, Sommers and Zhang, Financial Statements Analysis and Evaluation, Third Edition, Cambridge Business Publishers, ISBN 978-1-61853-009-7.
- > CFA Institute, CFA Program Curriculum Level 1 Book 3: Financial Reporting and Analysis.

### Course Description:

Through this course, you can deepen your understanding of financial statements and grasp relevant reading skills to capture the key financial information quickly. You'll also learn how to evaluate the quality and distinguish the true and false information of financial statements. This course will teach you the methods and tools to analyze financial statements to improve the abilities of evaluating enterprise operation results and financial status. Financial statement analysis is an analysis tool of management, which could be widely adopted to financial management, investment management and enterprise management. Financial analysis information could optimize enterprise's operation, management and decision making.

#### 17. Fixed-Income Securities

Targeted Level:	Course Type:
SOE Finance Juniors (IUEC)	Compulsory
Prerequisite:	Instructors:
Advanced Mathematics	Jian Chen

# Reference Book:

Bond Markets Analysis and Strategies, by FRANK J. FABOZZI, PEARSON, 2013.

# Course Description:

This course is compulsory for finance students. It studies basic problems related to fixed-income securities and explores the role of fix-income securities in modern economics. Through the study on YTM and total return, the return and risk as well as investment strategy of fixed-income securities could be analyzed. In this course, students will train their analysis abilities related to the return and risk of fixed-income securities and apply what they have learned to real investment. This course will also help students build a complete system with basic knowledge and skills of investment and lay a solid foundation for further study.

# 18. Game Theory

Targeted Level:	Course Type:
SOE Economics Juniors & Seniors	Elective
Prerequisite:	Instructors:
Microeconomics	Mengling Li / Zhenfa Xie

#### Reference Book:

- Game Theory for Applied Economists, by Robert Gibbons, Princeton University Press Reprint Edition (July 13, 1992), ISBN-10: 0691003955, ISBN-13: 978-0691003955.
- An Introduction to Game Theory, by Martin J. Osborne, Publisher: Oxford University Press (August 7, 2003), ISBN-10: 0195128958, ISBN-13: 978-0195128956.

#### Course Description:

Game theory is the study of multi-person decision problems. Such problems arise frequently in economics. Game theoretic models are quickly becoming a standard analytical tool in economics and social sciences research. As a result, it is crucial for university students in economics and social sciences to acquire at least a basic familiarity with game theoretic methods.

### 19. Honor Thesis Writing

Targeted Level:	Course Type:
SOE International Economics & Business Seniors	Elective
Prerequisite:	Instructors:
/	Huiping Yuan

#### Reference Book:

- Mishkin, The Economics of Money, Banking and Financial Markets, 11th Edition.
- > Du, Jinfu, Money and Financial statistics, 3<sup>rd</sup> Edition.
- ➤ Enders, Applied Econometric Time Series, 4<sup>th</sup> Edition.

### Course Description:

This course introduce main points of writing an academic paper, including topics, methods, and interpretation.

As for topics, students should be encouraged to deepen the grasp and application of theoretical basic knowledge, pay attention to the actual economic and financial phenomena and related policies, cultivate economic intuition, capture the problems of financial reality, think over and over again, and choose the topics.

The method includes theoretical model and econometric approaches. On the one hand, introduce relevant books to self-study and trains students' self-learning ability. On the other hand, encourage students to learn and stock theoretical models and econometric approaches from the literature, so that students are able to choose appropriate models and methods when writing.

In terms of interpretation, students can develop the ability to express clearly and intuitively the economic and financial phenomena, data and empirical results in a simple and straightforward language. This ability can be improved by reading a lot of excellent literature.

In writing, it is better to modify well than to write well, and the ability to write is improved in the process of revising papers.

# 20. Industrial Organization and Management

Targeted Level:	Course Type:
SOE Economics Juniors & Seniors	Elective
Prerequisite:	Instructors:
Advanced Mathematics, Intermediate Microeconomics	Jing Zhang

#### Reference Book:

Jeffrey Church and Roger Ware: Industrial Organization: A Strategic Approach, McGraw-Hill, 2000.

### Course Description:

This course will provide students with modern empirical methods in studying questions related to industry outcomes. They will learn how to estimate demand, supply as well as imperfect competition models among firms. This will enable the students not only to provide recommendation on the design of economic policy, but also propose informed strategies in pricing, marketing, etc. for firms. The students will learn how to use such models to infer demand elasticity, marginal costs as well as constructing policy simulations based on the estimated models to evaluate the effects of changes in the competitive environment, such as mergers, new product introductions, etc.

# 21. Intermediate Financial Accounting

Targeted Level:	Course Type:
SOE Finance & Public Finance Sophomores	Compulsory/Elective
Prerequisite:	Instructors:
Principles of Accounting	Xiaoran Ni / Zhigang Qin

# Reference Book:

- ➤ Kieso, Weygandt and Warfield, *Intermediate Accounting* (16th), WILEY, ISBN-13 978-1-118-74320-1.
- > The Chinese Institute of Certified Public Accountants, Accounting, China Financial & Economic Publishing House.

# Course Description:

This course covers intermediate financial accounting and financial report and decision making. The main focus will be the concepts, methods, and uses. The principal objectives of the course are:

- 1) To help students develop a sufficient understanding of the basic concepts underlying financial statements so that they can apply the concepts to new and different situations.
- 2) To train students in accounting terminology and methods so that they can interpret, analyze, and evaluate financial statements currently published in corporate annual reports.
  - 3) To provide the tools needed to understand what GAAP is and how it is applied in practice.

#### 22. Intermediate Public Economics

Targeted Level:	Course Type:
SOE Public Finance Juniors	Elective
Prerequisite:	Instructors:

Intermediate Microeconomics	Ye Chen
Reference Book:	

Intermediate Public Economics by Jean Hindriks and Gareth D. Myles, translated by Zhang Yan et al., Truth & Wisdom Press, Shanghai Joint Publishing & Shanghai Renmin Press.

### Course Description:

Public Economics has a profound academic tradition, originating from the political economic analysis of John Stuart Mill and David Ricardo. After the tradition of regarding tax analysis as a focus, public finance has developed into public economics and the development of new political economics has returned to its source. Public economics studies economic efficiency, allocation and government economic policies. It covers extensive topics, such as market failure due to externalities, motivation analysis of tax evasion and the interpretation for bureaucratic decision making. It tries to explain how governments make a decision and what decisions they should make.

This course mainly includes topics like the efficiency of competitive equilibrium and basic theorem of welfare economics, statistics and theory of public sectors, public economic theories of deviations from efficiency (such as externalities, public goods, imperfect competition and information asymmetry), political economic theories of government decisions (such as vote and rent seeking), economic theories of taxation (such as commodity tax, income tax and tax evasion), and competition between fiscal federalism and local taxation.

#### 23. International Business

Targeted Level:	Course Type:
SOE International Economics and Business Sophomores & Juniors	Compulsory
Prerequisite:	Instructors:
Principles of Economics, Principles of Management	Jihong Lin / Yan Chen

# Reference Book:

- Charles Hill, International Business, 9th Edition, China Renmin University Press, 2014.
- Alan M. Rugman. *International Business*, 6th Edition, Trans-Atlantic Publications, 2012.
- Lin Jihong, New International Business Textbook, China Renmin University Press, 2013.
- International Business: Competing in the Global Market.
- Michael R. Czinkota et al, Fundamentals of International Business, Peking University Press/Thomson Learning, 2009.

### Course Description:

This module is the core course of IB major. Students are required to master basic theories, principles and research methodologies of IB and be able to apply the theories in practice, such as explain the new issues and phenomenon and solve the problems. Students are required to read English journal, magazines and newspaper and cultivate comprehensive qualities and abilities, and be able to do cross-cultural communication.

### 24. Business English Correspondence

SOE International Economics and Business Sophomores (IUEC)	Elective
Prerequisite:	Instructors:
College English	Liqing Lin
Reference Book:	

> Business English Correspondence by Guan Chunlin, Tsinghua University Press, Peking University Press, 2013.

### Course Description:

Business English Correspondence is about how business correspondence works in the real world and the concepts behind effective correspondence. It emphasizes real-life business situations with examples and practices revolving around actual companies. It takes a practical and analytical approach to the development of content and style in business correspondence and stress logic, creativity, concern for recipients and importance of psychological approaches to the solution of business problems through effective and tactful correspondence.

# 25. Business English-Higher

Targeted Level:	Course Type:
SOE International Economics and Business Sophomores	Elective
Prerequisite:	Instructors:
/	Liqing Lin

### Reference Book:

Success with BEC.

# Course Description:

Business English-Higher, a course in communication skills, is for those who need, or will soon need, to use English in their work. The materials chosen are business-based and the activities involved are task-oriented. All this will reflect the kind of standard business practice that people in the business world are likely to encounter in their workplace. It is designed for a wired variety of learners ranging from young students or trainees with no or little work experience to senior business people with ample experience of dealing with foreign business partners or counterparts. The material falls into two parts: Business Topic and Business Skill. Business Topic covers the major topics of business, such as Ways of Working, Company Benefits, Advertising, Branding, Management, Ethical Economics, Law, etc. in Business Skill, learners are trained in such high-frequency skills as making contacts, presenting your company, delegating, negotiating, leaving and taking messages.

#### 26. International Business Law

Targeted Level:	Course Type:
SOE International Economics and Business Juniors	Elective
Prerequisite:	Instructors:
Nomology, Civil Laws, International Trade Practice	Qiguo He
Reference Book:	

- > The Newly Compiled International Commercial Law (Fourth Edition) by Cao Zuping, NPC Press, 2009.
- Law on the International Sale of Goods by Feng Datong, University of International Business and Economics Press, 1993.
- International Business Law by Feng Datong, University of International Business and Economics Press, 1991.

This course studies the legal norms for international business activities. Its aim is to help students apply international business law to practice and distinguish right from wrong in business with laws, so as to better carry out international business activities.

This course will use comparison and historical facts to teach students the basic principles and main ideas of international law, familiarize them with domestic and international law systems related to international business activities, especially relevant international trade customs, and help them improve their abilities of analyzing and solving problems.

### 27. International Economics

Targeted Level:	Course Type:
SOE Sophomores	Compulsory
Prerequisite:	Instructors:
Microeconomics, Macroeconomics, Principles of	Mingzhi Zhang / Yang Xu
_Economics	

#### Reference Book:

- International Economics (10<sup>th</sup> Edition) by Paul Robin Krugman, Maurice Obstfeld and Marc Melitz, Beijing: China Renmin University Press, 2016.
- International Economics (10<sup>th</sup> Edition) by Salvatore, Tsinghua University Press, 2008.
- International Economics (10<sup>th</sup> Edition) by Robert J. Carbaugh, China Machine Press, 2011.
- International Economics (7th Edition) by James Gerber, Pearson Education Limited, ISBN 978-1-292-21416-0.
- International Macroeconomics (2nd Edition) by Robert C. Feenstra and Alan M. Taylor, Worth Publishers, ISBN 978-1-4292-4103-8.
- International Trade: Theory & Policy (10th Edition) by Paul R. Krugman, Maurice Obstfelt, and Marc J. Melitz, Worth Publishers, ISBN 978-0-13-342367-9.

#### Course Description:

This is a core course of economics. Its aim is to train students to analyze economic phenomena from a perspective of international economics, and help students to grasp basic knowledge of international trade theories and policies, such as trade reasons, structure and effect, and basic knowledge of international financial theories, such as international balance of payments and exchange rate determination theory. Through this course, students are expected to understand the basic concepts, principles, methods and some leading research topics and be capable of applying what they have learned to analyze the international economic problems faced by China.

# 28. International Finance: Theory and Policy

Targeted Level:	Course Type:
SOE International Economics and Business Juniors	Compulsory

Prerequisite:	Instructors:
Microeconomics, Macroeconomics, Finance	Ganshu Zheng

- > Zheng Jianjun, Zheng Ganshu (2019), International Finance: Theory and Police.
- Krugman and Obstfeld (2011), International Economics Theory and Policy (Ninth Edition). Pearson-Addison Weasley.

### Course Description:

This course is a subject oriented course, which is a combination of theory and practice. Through the teaching of this course, the students can master the basic principles, contents and methods of the international finance more comprehensively. Through the course of study, students can deeply understand the important influence and function of the finance under the open economy, and the basic theory and knowledge of international finance, familiar with the operation mode, rules and related policies and regulations, so as to lay a solid foundation for the theory research and practice of international trade and international finance.

# 29. International Logistics and Supply Chain Management

Targeted Level:	Course Type:
SOE International Economics and Business Juniors (IUEC)	Elective
Prerequisite:	Instructors:
Microeconomics	Shuheng Lin

#### Reference Book:

- The Travels of a T-Shirt in the Global Economy, Pietra Rivoli, Wiley, 2011. ISBN: 9781118950142.
- International Logistics: The Management of International Trade, Cicero Books, LLC, 4th or 5th Edition, Pierre David, 2017. ISBN: 978-0989490641.

#### Course Description:

Today's business climate is increasingly global. It is now common to see a product designed in a place that's completely different from where it's manufactured and sold. This course introduces a series of concepts, frameworks, and analytic tools to help students better plan and integrate global supply chain components into a coordinated system with an emphasis on key trade-offs and risks. Specifically, it will cover topics consist of (1) development and evolution of structures in global supply chain organization, (2) rules and identification of risks associated with international supply chain management, and (3) analytic tools used in logistics planning and risk management.

The format of course instruction strikes a balance between theoretical knowledge and application in business settings. After key concepts and theories in logistics and supply chain management are introduced, case studies will be used to identify opportunities across the global supply chain to remove costs and manage risks. In the end, students should understand how supply chain structures change, how supply chain structures and industry structures overlap, and how these structures are affected by the speed of change in the industry. This course also aims to help students acquire hands-on, practical experience with common business applications of statistical modeling, including forecasting and demand estimation, and to become proficient in using statistical software (Excel) for managerial decision making.

# 30. International Trade in Services

Targeted Level:	Course Type:
SOE International Economics and Business Juniors	Elective
Prerequisite:	Instructors:
/	Yongbing Chen

- International Trade in Services by Liu Dongsheng, Peking University Press, 2014.
- > A Handbook of International Trade in Services by Mattoo A. et al., Oxford University Press, 2008.

#### Course Description:

This course is suitable for undergraduate students. International trade in services is an important discipline in recent years, mainly studying the theory and policy of international trade in services. This paper discuss the evolution of international trade in services, analyzes the evolution trend of international trade in services and analyzes the mechanism of policy.

# 31. International Settlement

Targeted Level:	Course Type:
SOE Finance Seniors & International Economics and	Flective
Business Juniors	Liective
Prerequisite:	Instructors:
/	Liping Su / Meilian Xu

# Reference Book:

- International Settlement (Second Edition), by Ying Sun, Xiamen University Press (March, 2012), ISBN 978-7-5615-3520-2.
- International Settlement, by Xiaofen Zhang and Jingtao Li, Beijing University Press (Sept., 2011), ISBN 978-7-301-17420-3.
- International Settlement, by Jinliang Xu and Jun Li, China Machine Press (May, 2011), ISBN 978-7-111-34376-9.

# Course Description:

International Settlement is an important branch of the International Finance and Trade. It is an application course through a combination of fundamental theory and practice.

The topics of this course include the basic principles and practical operational skills of International Settlement especially International Trade Settlement: The Instruments (Bill of Exchange, Promissory Note and Check), the Ways of International Settlement (Remittance, Collections, Letters of Credit and International Factoring, etc.), the Documents in International Settlement (Commercial Invoice, Transport Documents and Insurance Documents, etc.), the related International Customs and Practice, the Trade Financing in International Settlement, Case Studies, L/C and Documents Examination Training, and so on.

### 32. International Taxation

Targeted Level:	Course Type:
SOE Public Finance Juniors (IUEC)	Elective

Prerequisite:	Instructors:
China's Taxation	Wensheng Lin

- Michael J. McIntyre and Brian J. Arnold, *International Tax Primer*, Kluwer Law International; 3rd New Edition (2016).
- Qi Qing, International Taxation (7<sup>th</sup> Edition), China Renmin University Press.

### Course Description:

This is a core course of economics on the basic principles of international taxation. It aims to deepen your understanding of public finance on the basis of your original economic knowledge and lay a solid foundation for your future career.

# 33. International Trade and Settlement Experiment

Targeted Level:	Course Type:
SOE International Economics and Business Juniors	Elective
Prerequisite:	Instructors:
International Trade Practice, International Settlement	Meilian Xu

#### Reference Book:

Course Training Textbook of International Trade Practice and Settlement by Chen Yan, Higher Education Press, 2011

# Course Description:

This course is an experiment course. It offers students who are supposed to engage in international trade a chance to simulate the trade process before they go to work. Students majoring in marketing, international trade and others who want to work in trade-related fields in the future will especially benefit from the simulation training. The students will simulate the market trend analysis; offering and biding; negotiating; contract-executing, financing and so on.

# 34. Introduction to China's Foreign Trade

Targeted Level:	Course Type:
SOE International Economics and Business Juniors	Compulsory
Prerequisite:	Instructors:
International Economics, International Trade	Wen Chen

### Reference Book:

Introduction to China's Foreign Trade by Qu Ruxiao, China Machine Press, 2016.

### Course Description:

This course introduces the overall structure and international status of China's foreign trade from perspectives such as trade scale, trade structure, trade partners and trade methods. It also mentions the basic policies, laws, taxation of China's foreign trade. Students will learn how to adopt international trade theories to analyze the current

situation and major problems of China's foreign trade and enhance their abilities of understanding and analyzing problems.

#### 35. Investments

Targeted Level:	Course Type:
SOE Finance Sophomores	Compulsory
Prerequisite:	Instructors:
Higher Mathematics Foundation, Probability and Statistics	Shan'ang Chen

#### Reference Book:

- Zvi Bodie, Alex Kane, Investments, China Machine Press.
- Sharpe, Investments.
- The Securities Investment Theory and Practice.
- > A Random Walk down Wall Street.

### Course Description:

As a finance professional courses, the main content of this course with the CHARTERED FINANCIAL ANALYST (CFA) required by the PROGRAM test part content is consistent. The main purpose is to teach students about the general theory and methods of the securities investment.

# 36. Investment Banking

Targeted Level:	Course Type:
SOE Finance Juniors	Elective
Prerequisite:	Instructors:
/	Ming Zheng

#### Reference Book:

> Investment Bank by K.Thomas Liaw

# Course Description:

Investment banks are a group of non-bank financial institutions compared with commercial banks. It mainly undertakes the direct financing and relevant services and operation activities in the social financing system and plays an indispensable role in financing system. The aggregate financing of this kind will absolutely account for an increasingly larger proportion in China's economy. In China, investment banks are mainly comprehensive securities firms and also include brokerage firms, futures firms, securities finance firms, securities management firms and other institutions in charge of relevant activities in capital market.

This course will talk about the functions, operation models, structures and management systems of investment banks which provide direct financing services for capital market. It will also discuss financing methods and relevant skills such as stock and bond, relevant asset management, asset securitization and mergers and acquisitions. Through course learning and case analysis, students can understand the characteristics, functions, structures and supervision models of investment banks, IPO and SEO provide by investment banks, equity financing and risk capital of GEM and NEEQ, and private equity financing and debt financing. They will also learn the methods and skills related to due

diligence, value assessment and risk prevention of issuing companies, and self-operated business, brokerage, market making, securities margin trading, asset management, asset securitization, and mergers and acquisitions of investment banks. In this course, students can learn how to apply these skills and methods and improve their comprehensive analysis, problem solving and innovation abilities.

# 37. Investment Portfolio Management

Targeted Level:	Course Type:
SOE Finance Seniors	Elective
Prerequisite:	Instructors:
Principles of Economics, Finance	Yangqian Qiu

#### Reference Book:

- Investment Analysis and Portfolio Management (8th Edition) by Frank K. Reilly.
- Investors and Market by William F. Sharpe.
- > The Intelligent Asset Allocator by William Bernstein.
- A Random Walk down Wall Street (10<sup>th</sup> Edition) by Burton G. Malkiel.
- > Basic Economics: A Common Sense Guide of the Economy by Thomas Sowell.

# Course Description:

This course combines basic theories and commercial knowledge. It starts from basic concepts and includes more case analysis and group discussion to help students understand the basic methods of investment portfolio, especially individual investment portfolio. Its aim is to help students grasp common financial investment concepts and be familiar with financial product analysis and individual investment portfolio management after this course.

# 38. Marketing

Targeted Level:	Course Type:
SOE Statistics Juniors	Elective
Prerequisite:	Instructors:
Economics, Management	Zecong Chen

### Reference Book:

Marketing (7<sup>th</sup> Edition) by China Renmin University Press, 2017.

# Course Description:

This course is an elective course for students majoring in economic statistics. It helps students to understand the basic theories and strategies of marketing and master relevant methods and skills. Through course learning and case discussion, students can better adopt marketing principles to analyze market survey and make a marketing plan.

### 39. Mathematical Analysis II

Targeted Level:	Course Type:
SOE Statistics & Finance Freshmen (IUEC)	Compulsory

Prerequisite:	Instructors:
Mathematics, Mathematical Analysis I	Jianhua Lin

- Mathematical Analysis (4<sup>th</sup> Edition), China Higher Education Press, 2011.
- Mathematical Analysis I & II by Vladimir A. Zorich, Springer, 2004.

#### Course Description:

This course is the second part of Mathematical Analysis. It mainly discusses the theories and methods of integral and series, including definite integral and improper integral, fundamental theorem of calculus, convergence of improper integral, convergence of series, convergence of series with function terms, power series, Taylor series, power series expansion and multivariate functions.

#### 40. Mathematical Economics

Targeted Level:	Course Type:
SOE Finance, International Economics and Business & Public Finance Sophomores (IUEC)	Compulsory
Prerequisite:	Instructors:
Calculus, Linear Algebra	Ziyan Yang

#### Reference Book:

- Carl P. Simon and Lawrence Blume (1994), Mathematics for Economists. W. W. Norton & Company, ISBN 9780393957334.
- Alpha C. Chiang and Kevin Wainwright (2005), Fundamental Methods of Mathematical Economics, 4th Ed. McGraw-Hill Irwin, ISBN 0-07-010910-9.
- Angel de la Fuente (2000), *Mathematical Methods and Models for Economists*. Cambridge University Press, ISBN 0-521-58512-0.

### Course Description:

This course introduces the mathematical techniques required for studying economics at the senior undergraduate level and presents the applications of these techniques to problems from a wide range of fields in economics. Topics include linear models and basic matrix algebra, univariate and multivariate calculus, unconstrained and constrained optimization, equilibrium analysis, comparative statics, and if time remains, basic dynamic analysis. This course is intended to assist the students to understand mathematical concepts and methods employed in modern economic theory and models, and develop skills to apply mathematical tools to analyze economic problems.

#### 41. Mathematical Statistics

Targeted Level:	Course Type:
SOE Sophomores (IUEC & Statistics)	Compulsory
Prerequisite:	Instructors:
Advanced College Mathematics or Calculus, Probability	Wei Zhong / Zhiqiang Zhang

- An Introduction to Mathematical Statistics and Its Applications, Richard Larsen and Morris Marx, 5th Edition, 2012, Pearson. ISBN-13: 978-0-321-69394-5.
- Statistical Inference, 2nd Edition, George Casella and Roger Berger, 2001, Duxbury Press. ISBN-13: 978-0534243128.
- Introduction to Mathematical Statistics, 7th Edition, Robert Hogg, Allen Craig and Joseph McKean, 2012, Pearson. ISBN-13: 978-0321795434.
- Probability and Mathematical Statistics, Mao Shisong, et al., 2nd Edition, Higher Education Press, 2011.2; chapter5-chapter8.
- Mathematical Statistics with Applications, Irwin Miller and Marylees Miller, Seventh Edition, Tsinghua University Press, 2005.1.

#### Course Description:

This course is compulsory for students in economics and it is a fundamental course for other statistics and econometrics courses. The aim of this course is to teach students the fundamental knowledge of mathematical statistics. In this course, you will learn: sampling from the normal distributions; order statistics; methods of finding estimators including method of moment estimation and maximum likelihood estimation; properties of point estimators; unbiased estimation; sufficiency and completeness; uniformly minimum-variance unbiased estimator (UMVUE); parametric interval estimation; hypothesis testing; most powerful test; goodness-of-fit test, etc.

### 42. Microeconomics

Course Type:
Compulsory
Instructors:
Xi Yang / Zhenfa Xie

### Reference Book:

- Hal R. Varian: Intermediate Microeconomics: A Modern Approach, 8th Edition, 2009.
- Walter Nicholson: Microeconomic Theory: Basic Principles and Extensions, 9th Edition, Peking University Press, 2005.
- Marxism Theoretical Research and Construction Project Group: Western Economics, Higher Education Press, People's Publishing House, 2012.
- Robert S. Pindyck & Daniel L. Rubinfeld: *Microeconomics*, Tsinghua University Press, 2010.

# Course Description:

Building upon Principles of Economics, this course aims to provide students with comprehensive understandings about the economic decisions by individuals and how individual behavior affects the market. Students will learn the methods of Microeconomic analysis and the important concepts related to Microeconomics, which helps to develop the skills of understanding the real world with the tools taught in this course. The course will be taught in English. After learning this course, students should be able to understand the key insights in the field of Microeconomics. They will also learn how to use the Microeconomics tools in understanding the effects of government policies.

# 43. Monetary Economics

Targeted Level:	Course Type:
SOE Economics Juniors & Seniors	Elective
Prerequisite:	Instructors:
Macroeconomics	Xudong Tan

The Economics of Money, Banking and Financial Markets (Ninth Edition) by Frederic S. Mishkin, Renmin University of China Press, 2013. ISBN 978-7-300-17374-0.

### Course Description:

This course studies macroeconomic phenomena related to money and explains how money affects macro economy. It covers the following topics: financial markets, financial institutions, monetary policy, monetary theory, international finance and monetary policy.

# 44. Multivariate Statistical Analysis

Targeted Level:	Course Type:
SOE Statistics Juniors	Elective
Prerequisite:	Instructors:
Mathematical Statistics, Econometrics	Jingyuan Liu

#### Reference Book:

- Methods of Multivariate Analysis 3rd Edition, Alvin C. Rencher and William F. Christensen, WILEY, 2013.
- > Applied Multivariate Statistical Analysis.
- Introduction to Applied Multivariate Analysis with R.

# Course Description:

This is an introductory multivariate statistical analysis course designed for senior undergraduate students in the Department of Statistics. The objective of the course is to introduce a variety of statistical methods used to analyze multivariate data, with emphasis on the implementation and interpretations of these methods. Topics covered include matrix computation of summary statistics, graphical techniques for displaying multivariate data, the geometry of sample data, the multivariate normal distribution, principal components analysis, factor analysis, canonical correlation analysis, classification/discrimination, as well as cluster analysis. We will use the R software packages for statistical computing and data analysis during the course.

# 45. National Economic Statistics

Targeted Level:	Course Type:
SOE Statistics Juniors	Elective
Prerequisite:	Instructors:
	Can Yang, Yuzhe Zhang & Juan Wen
	Carriang, razile zhang a caan vven

- Yang Can: National Accounting (National Economic Statistics), 4th Edition, China Statistics Press, March, 2015.
- United Nations: System of National Accounts, 2008 (SNA2008), Sales No. E.08.XVII.29, document symbol ST/ESA/STAT/SER.F/2/Rev.5.

National economic statistics is an important tool for macroeconomic management and analysis and is highly praised by governments and people from all walks of life. National economic statistic is a significant part of economic statistics. As a main course of College Statistics Programs, the teaching objectives and tasks of this course are to provide students with the skills and competencies to a) fully understand the role and significance of national economic statistics in national economic management and macroeconomic analysis b) know the fundamentals of national economic statistics and analytical methods of major macroeconomic index, and c) lay a solid theoretical basis for national economic administration, macroeconomic management and operation management of business.

# 46. Ordinary Differential Equation

Targeted Level:	Course Type:
SOE Statistics Sophomores (IUEC)	Compulsory
Prerequisite:	Instructors:
Mathematical Analysis, Advanced Algebra	Zhonglei Wang

#### Reference Book:

- Wang Gaoxiong, Zhou Zhiming, Zhu Siming & Wang Shousong: *Ordinary Differential Equation* (3<sup>rd</sup> Edition), China Higher Education Press, 2006.
- C. Henry Edwards & avid E. Penney: Fundamental Ordinary Differential Equation (5<sup>th</sup> Edition), China Machine Press, 2005.

# Course Description:

Based on calculus, this course aims to help students understand the origin and application (especially in mathematics) of ordinary differential equation. It will discuss the types of first order ordinary differential equation and relevant solutions, methods of reduction of order for special equations of higher orders, existence-uniqueness theorem for first-order ordinary differential equations, continuation of solutions, theorem on continuous dependence of solutions on initial value and parameter, existence-uniqueness theorem for first-order ordinary differential equation systems, solution-space structure of homogeneous linear differential equation systems, solution of ordinary constant coefficient homogeneous linear differential equation systems, solution of nonhomogeneous linear differential equation systems (variation of constants) and solution of ordinary linear equations of higher orders.

# 47. Political Economics (Socialism)

Targeted Level:	Course Type:
SOE Freshmen & Economics Juniors & Seniors	Compulsory/Elective
Prerequisite:	Instructors:
Political Economics (Capitalism)	Shumin Lin
Reference Book:	

- Political Economics (Socialism) by Xu Jingyong, Xiamen University Press.
- Introductory Marxist Political Economy by Liu Shucheng & Wu Shuqing, People's Publishing House, Higher Education Press.
- New Socialist Political Economics Textbook by Hong Yinxing, People's Publishing House, 2018.

This course contains 14 chapters, mainly introducing the formation of the socialist market economy, microeconomic activities of socialist enterprises, the reform of state-owned enterprises, income distribution, economic development, the macroeconomic regulation and control, etc.

# 48. Principles of Accounting

Targeted Level:	Course Type:
WISE Freshmen	Compulsory
Prerequisite:	Instructors:
Principles of Economics	Xiaoran Ni / Huifeng Chen

#### Reference Book:

- John Wild et al.: Fundamental Accounting Principles, 21th Edition.
- Wu Shuipeng: Principles of Accounting, Economic Sciences Press, 2010.

# Course Description:

This course covers principles of accounting, especially financial accounting. The main focus will be the concepts, methods, and uses. The objectives of the course are:

- 1. To help students develop a sufficient understanding of the basic concepts and principles underlying accounting so that they can apply the concepts in different situations.
- 2. To train students in accounting terminology and methods so that they can interpret, analyze, and evaluate financial statements currently published in corporate annual reports.
- 3. To prepare students for further study such as intermediate accounting, corporate finance, and financial statement analysis.

# 49. Property Insurance and Personal Insurance

Targeted Level:	Course Type:
SOE Finance Juniors	Elective
Prerequisite:	Instructors:
/	Li Xu

#### Reference Book:

- > Property Insurance by Wang Xujin, Peking University Press, 2017.
- Personal Insurance by Liu Dongjioa, China Finance Press, 2010.

# Course Description:

This is an elective course in economics and finance. It mainly teaches the basic theory and practice of property insurance and personal insurance. It also helps students understand and master the knowledge they have learned and

understand the latest development of insurance market at home and abroad through a large number of case studies and classroom discussions.

### 50. Public Economics

Targeted Level:	Course Type:
SOE Sophomores	Compulsory
Prerequisite:	Instructors:
Microeconomics, Macroeconomics	Xixi Lin

#### Reference Book:

- Public Finance (10<sup>th</sup> Edition) by Harvey S. Rosen, China Renmin University Press, 2015.
- Public Finance (2<sup>nd</sup> Edition) by Zhang Xin, Science Press, 2010.

#### Course Description:

This is the core of the economic class professional courses. We use the textbook which is relatively representative in the international public finance education and integrate the newest research result from the Chinese characteristics socialism finance. This course involves the basic theory of finance, fiscal expenditure, fiscal revenue and fiscal system, etc. We try to enable students to absorb the modern financial theory knowledge, apply knowledge to analyze China's fiscal problems, as to grasp a comprehensive system of the Chinese characteristics socialism finance.

# 51. Public Finance

Targeted Level:	Course Type:
SOE Public Finance Sophomores (IUEC)	Compulsory
Prerequisite:	Instructors:
Microeconomics, Macroeconomics	Jinxiu Ding

# Reference Book:

- Public Finance (10th Edition) by Harvey S. Rosen and Ted Gayer, Tsinghua University Press 2015.
- > Public Finance (2nd Edition) by Xin Zhang, Gong Chen, Genqiang Lei Science Press 2010.

# Course Description:

This is the core course for major of economics. The course selects the most representative textbook in the field of public finance and integrates the newest research content from the Chinese characteristics socialism finance. This course involves the basic theory of finance, fiscal expenditure, fiscal revenue and fiscal system, etc. The course aims to let students learn the knowledge of the modern financial theory, analyze China's fiscal problems using what they learn from this class, and comprehensively and systematically grasp the theoretical system of the Chinese characteristics socialism finance.

# 52. Public Policy Analysis

Targeted Level:	Course Type:
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SOE Public Finance Juniors (IUEC)	Electvive
Prerequisite:	Instructors:
Econometrics, Probability, and Mathematical Statistics	

- Angrist, Joshua, and Jörn-Steffen Pischke. (2014) *Mastering 'Metrics: The Path from Cause to Effect*. Princeton University Press.
- Angrist, Joshua, and Jörn-Steffen Pischke. (2008) *Mostly Harmless Econometrics: An Empiricist's Companion*. Princeton University Press.
- Cameron, Colin, and Pravin Travedi. (2005) Microeconometrics: Methods and Applications. Cambridge University Press.

# Course Description:

This is an advanced course about using microeconometrics in public policy analysis. It is designed for undergraduate students in the public finance accelerated program. Building on the introductory level econometrics, this course studies econometric estimation and inference methods frequently used in program evaluation and other empirical studies. The course will cover theories, applications as well as Stata skills in the field of microeconometrics. It aims at equipping the students with all necessary knowledge and skills to fulfill a simple empirical research project.

# 53. Real Analysis

Targeted Level:	Course Type:
SOE Statistics Sophomores (IUEC)	Elective
Prerequisite:	Instructors:
Calculus, Mathematical Analysis	Xingbai Xu

#### Reference Book:

- Real Analysis: Measure Theory, Integration and Hilbert Space by Elias Stein and Shakarch, Princeton University Press, 2005 (ISBN: 9787510040535).
- Functions of Real Variable and Functional Analysis by Guo Maozheng, ISBN: 9787301078570.

# Course Description:

This course is to provide students majoring in statistics with training in measure theory and modern analysis such that they can learn advanced probability theory and advanced mathematical statistics in the future. Measure theory is the basis of modern probability theory and statistics, and it is indispensable for reading statistical theory papers. This course will require students to master the essentials of measure theory and Hilbert space.

# 54. Resource and Agricultural Economics

Targeted Level:	Course Type:
SOE Economics Juniors & Seniors	Elective
Prerequisite:	Instructors:
Public Economics, Principles of Economics	Jingjing Cai
Reference Book:	

- Peterson, E. Wesley (2001). The Political Economy of Agricultural, Natural Resource, and Environmental Policy Analysis, Iowa State Press.
- Knutson, R.D., Penn, J.B., Flinchbaugh, B.L. and J.L. Outlaw (2007). Agricultural and Food Policy, 6th Edition, Prentice Hall.
- Elinor Ostrom. Understanding Institutional Diversity, Princeton University Press. 2005.

This course aims to teach students the necessary economic tools for agriculture, food, natural resources and environmental policy evaluation and analysis, including social value evaluation, morals and institutional analysis. It contains two parts. The first part is the basic concepts and theoretical background of policy analysis. The second part is about the economic tools for policy analysis and case discussion: cost-benefit analysis, market model, welfare analysis, and partial and general equilibrium analysis. We select representative cases related to agriculture, natural resources and environmental policies for discussion, develop a socio-ecological and human-nature system view, guide students to understand environmental issues with interdisciplinary thought, understand the diversity of institutions, and deepen the understanding and application of theoretical knowledge.

# 55. Seminar on Development Economics

Targeted Level:	Course Type:
SOE Economics Juniors & Seniors	Elective
Prerequisite:	Instructors:
Advanced Mathematics, Intermediate Microeconomics	Jing Zhang

# Reference Book:

Debraj Ray, Development Economics, Princeton University Press, 1998.

#### Course Description:

This course focuses on topics central to the growth and economic development of developing nations. I do not intent to provide an exhaustive survey of development economics but rather to go into a few topics in some depth. The focus is on reading and understanding current empirical research in Development economics, while touching various formal modeling issues. These topics involve both macro and micro-economic issues and the analysis will combine applied theory and econometrics. The concepts and approaches used to study the topics in class are also used in other areas of empirical studies in economics. The course will conclude with a series of seminar in which you are expected to present your choice of topics in development economics.

### 56. Seminar on Econometrics

Targeted Level:	Course Type:
SOE Economics Juniors & Seniors	Elective
Prerequisite:	Instructors:
/	Derong Zhang
Reference Book:	

- Wooldridge, Introductory Econometrics: A Modern Approach, 5th Edition.
- Introduction to Econometrics, 3<sup>rd</sup> Edition by Stock and Watson

This course will teach methods of econometrics and how to select an appropriate econometrics method based on existing data for research.

#### 57. Seminar on Labor Economics

Targeted Level:	Course Type:
SOE Economics Juniors & Seniors	Elective
Prerequisite:	Instructors:
Labor Economics, Personnel Economics	Peiwen Bo

#### Reference Book:

- Edward Lazear & Michael Gibbs, Personnel Economics in Practice, 2007.
- David Sapsford & Zafiris Txannatos, Current Issues in Labor Economics, Macmilian Press, 1990.

#### Course Description:

This course is the seminar of Labor Economics and Human Resource Management, belonging to applied and theoretical course. It consists of teaching and guiding the students to practice. Instruction including: Dual economic theory and Lewisian Turning Point, labor share of income, estimating return on education, measurement and estimation on wage discrimination, strategic complementarities between R&D and training, implementation of the New Labor Contract Law and its problem and so on. Instruction covers the entire process of writing academic papers, including selecting topic, reviewing of literature, designing research framework and procedure, choosing methods.

# 58. Seminar on Regional Economics and Urban Planning and Management

Targeted Level:	Course Type:
SOE Economics Juniors & Seniors	Elective
Prerequisite:	Instructors:
Intermediate Microeconomics	Wenchao Xu

#### Reference Book:

- McDonald, John F.; McMillen, Daniel P. *Urban Economics and Real Estate Theory and Policy*, 2nd Edition, John Wiley & Sons, Inc., USA, 2010.
- McCann, Philip. Modern Urban and Regional Economics 2nd Edition, Oxford University Press, USA.
- > O'Sullivan, Arthur. *Urban Economics* 8th Edition, McGraw-Hill Education.

# Course Description:

This is a lecture-based and task-oriented, elective class for undergraduate students in the Economics Department and other departments from the School of Economics and WISE. All lectures will be provided in English only as required.

The course is designed to get students familiarize with the issues in regional studies and urban economics

(including land, water, pollution, public health, and others); and to provide basic training of research skills, which students can easily apply to their research of other topics in the future.

## 59. Social Security

Targeted Level:	Course Type:
SOE Public Finance Juniors	Elective
Prerequisite:	Instructors:
/	Weixian Cai

### Reference Book:

- > Introduction to Social Security (5<sup>th</sup> Edition) by Sun Guangde & Dong Keyong, China Renmin University Press, 2016.
- Social Security (2<sup>nd</sup> Edition) by Zhao Man, China Higher Education Press, 2014.

## **Course Description:**

Social Security is a social discipline based on economics, politics and sociology. It focuses on the combination of theory and reality, comprehensive inter-discipline research, and combination of quantitative and qualitative analysis. With justice, efficiency, interference and freedom as the main line, this course aims to illustrate the basic theories and operation mechanism of social securities, study its development process, describe relevant practice of representative countries and analyze the relationship between social security and society, economy and politics.

# 60. State-Owned Asset Management

Targeted Level:	Course Type:
SOE Public Finance Juniors	Elective
Prerequisite:	Instructors:
Political Economics, Public Finance, Management	Guoqing Zhu
Poforonco Book:	

### Reference Books

New Introduction to State-Owned Asset Management by Liu Yuping and Wen Laicheng, Tsinghua University Press, 2004.

### Course Description:

Public sector is the "ballast" and "stabilizer" of China's economic and social development. State-owned assets are the material foundation of socialist system. Thus, it is necessary to well manage state-owned assets and give full play to the dominance of public sector in national economy for the development and improvement of socialist market economy and the strengthening of government's macro control. By studying the basic theories, the policies and institutions of state-owned asset management, and combining the difficulties and hot topics of current state-owned asset management, you can better understand China's economic system, in which public ownership plays a dominant role and diverse forms of ownership develop side by side. By summarizing the positive and negative experience and lessons, you can lay a solid foundation for your future career in this field.

## 61. Stochastic Process

Targeted Level:	Course Type:
SOE Finance Juniors & Seniors	Elective
Prerequisite:	Instructors:
Financial Engineering, Probability and Mathematical Statistics	Jian Chen

/

## Course Description:

This course is usually considered as a dynamic part of probability, studying the dynamic characteristics of stochastic phenomena. This discipline has been widely used in social science, natural science and economics and management. Through this course, students can deepen their understanding of basic theories, thoughts and methods of stochastic process and use the knowledge to solve stochastic problems, so as to improve research and problem solving abilities. They can also enhance their abilities of building mathematical stochastic models, analyzing and solving problems and be prepared for further applied theory courses.

# 62. Tax Accounting

Targeted Level:	Course Type:
SOE Public Finance Juniors	Elective
Prerequisite:	Instructors:
Principles of Accounting	Huifeng Chen

## Reference Book:

- > Tax Accounting by Gai Di, China Renmin University Press, 2018.
- > Taxation Laws, by CICPA, Economic Science Press, 2019.

## Course Description:

This course focuses on the basic theory of tax accounting, VAT, consumption tax, etc.

## 63. Tax Administration

Targeted Level:	Course Type:
SOE Public Finance Juniors (IUEC)	Elective
Prerequisite:	Instructors:
China's taxation	Wensheng Lin

## Reference Book:

- Law of the People's Republic of China on the Administration of Taxation Collection.
- > Tax Administration (6<sup>th</sup> Edition), China Renmin University Press, 2014.

# Course Description:

This course will introduce the undergraduate students the theory and practice of tax administration. It will help the students to master the theory framework of tax administration and its recent development. Topics like tax compliance, tax audit, and resolution of tax dispute will be discussed in details.

## 64. Tax Planning

Targeted Level:	Course Type:
SOE Public Finance Juniors	Elective
Prerequisite:	Instructors:
China's Taxation, International Taxation, Intermediate	Wei Xiong
Financial Accounting	

### Reference Book:

- Tax Planning by Tong Jinzhi, Science Press, 2016.
- Tax Planning by Ji Jinbiao, China Renmin University Press, 2012.
- Principles of Taxation for Business and Investment Planning, by Sally M Jones, China Renmin University Press, 2009.

### Course Description:

According to the actual conditions of China and the economic society in the 21st century, Economics students should have relatively strong market economic awareness and adaptable abilities, understand fundamental economic theories and be capable of working at different economic departments of government in the future. In recent years, as China's taxation law system is increasingly being improved, tax planning activities have developed rapidly. Thus, this course aims to help students obtain an in-depth understanding of the theories and methods of tax planning, so as to improve their actual work capacities.

## 65. Time Series Analysis

Targeted Level:	Course Type:
SOE Statistics, Finance & Economics Juniors & Seniors	Compulsory//Elective
Prerequisite:	Instructors:
Probability and Mathematical Statistics	Yingxing Li / Changquan Huang / Xudong Tan

## Reference Book:

- Time Series Analysis with Applications in R.
- Introductory Time Series with R. Cowpertwait P. S. P. and A.V. Metcalfe, Springer, 2009.
- Applied Time Series Analysis by Wang Yan, China Renmin University Press, 2012.
- > Time series analysis, James D. Hamilton.

## Course Description:

Time Series Analysis is an important branch in Inferential Statistics, and it also has wide applications in Economics, Social Science, and Natural Science. In this course, we will introduce the important theory and methods that are used in time series analysis, and discuss in details how to model stationary time series, nonstationary time series, seasonal time series, including model identification, parameter estimation, model diagnostic checking, prediction and control and so on. After taking this course, students are expected to learn the skills needed to do

empirical research with time series data, and they are able to evaluate their analysis and know how to improve their analysis, which might help them a lot in further studying and practices.

## 66. Undergraduate Thesis Writing

Targeted Level:	Course Type:
SOE Statistics & Public Finance Seniors	Compulsory/Elective
Prerequisite:	Instructors:
Categorical Data Analysis	Zhenghui Feng / Yiming Wang

#### Reference Book:

- XMU Undergraduate Thesis (Design) Standards
- > Eviews User Guide and Case Study by Zhang Xiaotong, China Machine Industry, 2008.

### Course Description:

This course is a sequel course of Undergraduate writing course. Its preliminary requirements include: 1) the successful completion of pre-requisite courses; 2) the successful identification of a research question, i.e., a thesis topic; and 3) the completion of a preliminary thesis draft in fall 2018.

The goal of this course is to teach students how to revise and polish their preliminary draft and complete their theses in a satisfactory manner and according to academic standards. In order to achieve this goal, this course is designed as follows:

First, the course introduces students every part of the thesis and required files and timetable.

Second, the course introduces students to the ethics, especially we will stress on the harmfulness of plagiarism.

Third, we will give students guidance and suggestions according to the elements and the structure of thesis writing. In terms of ethics. In terms of element, we will focus on the academic standards of citation. Formatting issues of the thesis will also be discussed. In terms of the writing structure, we will discuss the writing of introduction, literature review, data section, analysis, conclusion, and abstract one by one. This course provides a revision structure for the students through a series of take-home assignments and deadlines, so that students can make progress on their theses through frequent production of written materials.

Fourth, the course provides for students an opportunity to orally present their work and receive feedback from instructor and peers.

# **WISE Undergraduate Program (Fall Semester)**

## 1. Business Communication and Culture I

Targeted Level:	Course Type:
WISE Freshmen	Compulsory
Prerequisite:	Instructors:
/	Roslyn Bowers

## Reference Book:

- > Essentials of Management: An International Perspective; H. Koontz, Heinz Weihrich.
- International Management: Culture, Strategy, and Behaviour; F. Luthans, J. P. Doh.
- International Business; Wild, Wild & Han.
- > Business Communication by Madhukant Jha.
- Business Communication by Scot Ober.
- Essentials of Management: An International Perspective; H. Koontz, Heinz Weihrich.

### Course Description:

This course, Business Communication and Culture seeks, among other things, to give students hands on experience in how businesses operate and function through 1"the sharing of information between people within and outside the organization that is performed for the commercial benefit of the organization."

It seeks to explore and deepen the students' understanding and knowledge of not only the field of communication, but also, in a broader sense, how communication relates to the international business society and its connection to bringing together the cultures of the East and Western world, by initiating an interactive communicative process of sharing knowledge and information and creating experiential opportunities, which will give students the opportunity to make and create meaning.

## 2. Chinese Economy

Targeted Level:	Course Type:
WISE Juniors & Seniors	Compulsory
Prerequisite:	Instructors:
Principles of Economics	Xiaojia Bao

## Reference Book:

- > Barry Naughton, The Chinese Economy: Transition and Growth.
- Loren Brandt and Thomas Rawski. 2008. China's Great Economic Transformation, Cambridge University Press.
- Wu Jinglian, China's Modern Economic Reforem Textbook, Shanghai Yuandong Publishing House, 2010.
- Zou Zhizhuang, China's Economic Transformation, China Renmin University Press, 2005.

# Course Description:

The course provides a general introduction to the background and current structure of Chinese economy. It aims to help students understanding sources of Chinese economic growth and analyzing economic problems in China using empirical and theoretical approaches. After the training of the class, students should get a understanding of the Chinese economy and be able to use empirical or theoretical skills to analyze questions related to Chinese Economy. We will first cover the basic geographic and demographic backgrounds, and then a brief introduction on economic

growth history in China. Following it, we will mainly explore the behavior and decision-making of main players in the economy, including firms, governments and households. Throughout the way, we will integrate industrialization, decentralization and urbanization together. In the end, the course will cover specific fields including trade and financial system in China.

### 3. Econometrics

Targeted Level:	Course Type:
WISE Juniors	Compulsory
Prerequisite:	Instructors:
Probability, Mathematical Statistics	Qingliang Fan / Haiqiang Chen

### Reference Book:

- Econometrics (3<sup>rd</sup> Edition) by James H. Stock & Mark W. Watson.
- Econometrics (4<sup>th</sup> Edition) by Li Zinai & Pan Wenging.
- Advanced Econometrics and Stata Application (2<sup>nd</sup> Edition) by Chen Qiang.
- > Introduction to Econometrics, Stock and Watson, 3rd Edition, Pearson Higher Education
- Introductory Econometrics: A Modern Approach, Jeffrey M. Wooldridge, 6th Edition
- > Mostly Harmless Econometrics: An Empiricist's Companion, Angrist and Pischke, 1st Edition

### Course Description:

This course is required for economics and statistics major students. The main contents of this course is background in mathematical statistics, basic econometrics modeling, parameter estimation and statistical inference, multivariate regression models, discrete variables, endogeneity and instrumental variables, GMM, policy evaluation and treatment effect, topics in regression discontinuity and DID, panel data models, quantile regression, etc.

### 4. Game Theory

Targeted Level:	Course Type:
WISE Juniors & Seniors	Elective
Prerequisite:	Instructors:
Calculus I – III, Probability Theory, Intermediate	Yun Wang
	V 14/

## Reference Book:

- An Introduction to Game Theory, by Martin J. Osborne, Publisher: Oxford University Press (August 7, 2003), ISBN-10: 0195128958, ISBN-13: 978-0195128956.
- Game Theory for Applied Economists, by Robert Gibbons, Princeton University Press Reprint Edition (July 13, 1992), ISBN-10: 0691003955, ISBN-13: 978-0691003955.

## Course Description:

Game theoretical reasoning pervades economic theory and is used widely in other social and behavioral sciences. This course presents the main ideas of game theory and shows how they can be used to understand economic, social, political, and biological phenomena. It emphasizes the ideas behind the theory rather than their mathematical expression and assumes no mathematical knowledge beyond college calculus and probability theory. All concepts are defined precisely, and logical reasoning is used throughout. The aim is to explain the main ideas of game theory as

simply as possible while maintaining complete precision. After completing this course students will be able to view social interactions as strategic games, to use game theoretic concepts to predict behavior in these interactions and to conceive of ways in which altering the rules of the game will affect outcomes.

## 5. Industrial Organization

Targeted Level:	Course Type:
WISE Juniors & Seniors	Elective
Prerequisite:	Instructors:
Microeconomics	Jialiang Zhu
Poforonoo Pooks	

#### Reference Book:

- Industrial Organization: Contemporary Theory and Empirical Applications, Lynne Pepall, Daniel J. Richards, and George Norman.
- The Antitrust Casebook, William Breit and Kenneth Elzinga.

## Course Description:

Industrial organization is a subfield of microeconomics devoted to the study of firms and markets, focusing in particular on how firms acquire market power, how firms use this power once acquired, and how competing firms interact strategically. The development of non-cooperative game theory over the past several decades has provided new, formal tools to study these issues and has led to an explosion of interest in industrial organization. Many of the lectures will be theoretical, but there will also be discussions of policy issues and empirical methods.

This course innovates the traditional industrial organization class. It consists of theory, case study and empirical method. After the course, students should be able to distinguish market strategy, improve their literature reading skills, and know some basic data management skills.

### 6. Investments

Targeted Level:	Course Type:
WISE Juniors & Seniors	Elective
Prerequisite:	Instructors:
/	Mengmeng Ao

## Reference Book:

- Investments (any recent version), Z. Bodie, A. Kane, A.J. Marcus, Mc-Graw Hill Education.
- Essentials of Investments (9th Edition), Z. Bodie, A. Kane, and A.J. Marcus, 2013, Mc-Graw Hill Education. ISBN 978-007-714824-9.

### Course Description:

This course provides you with an introduction to the most fundamental aspects of investments, and possesses both theoretical and practical characteristics. The course aims at illustrating basic knowledge and skills about investments, and guiding students to systematically understand basic concepts and functions of financial markets, portfolio theory and financial assets allocation, investment analysis and management, pricing and using financial derivatives, investment performance evaluation etc. Through the course, students will learn about the investment principles in financial markets, and apply what they learn to analyze and explain investment phenomena in real

economic world, get prepared for further study and research, and enhance practical investment abilities.

## 7. Law Economics

Targeted Level:	Course Type:
WISE Juniors & Seniors	Elective
Prerequisite:	Instructors:
/	Cheryl Long

### Reference Book:

- Robert Cooter and Thomas Ulen, Law and Economics (Addison-Wesley, 6 ed.)
- Richard Posner, Economic Analysis of Law (Apsen)

## Course Description:

This course provides an introduction to law and economics. Standard economic theory will be applied to analyze law and legal institutions and to study the origin, nature, and consequences of the "rules of the game" as they pertain to individual and group behaviors. Specifically, applications of economic theory in property law, contract law, tort law, crime and prosecution, and other related topics will be discussed.

## 8. Literature Review and Thesis Writing

Targeted Level:	Course Type:
WISE Seniors	Compulsory
Prerequisite:	Instructors:
/	Lei Meng

## Reference Book:

- Fu Shihe & Judy M. Perrella. 2012. How to Write and Publish Economic Research Papers in English.
- Cochrane, John H. 2005. Writing Tips for Ph.D. Students. Working Papers. Online at https://faculty.chicagobooth.edu/john.cochrane/research/papers/phd\_paper\_writing.pdf
- Dudenhefer, Paul. 2009. A Guide to Writing in Economics. EcoTeach Center and Department of Economics, DukeUniversity. Online at http://lupus.econ.duke.edu/ecoteach/undergrad/manual.pdf
- Neugeboren, Robert and Mireille Jacobson. 2005. *Writing Economics*. The Harvard Writing Projects. Online at https://writingproject.fas.harvard.edu/files/hwp/files/writingeconomics.pdf

## Course Description:

The primary goal of this course is to help undergraduate students complete their undergraduate theses in a satisfactory manner. In order to achieve this goal, this course is designed as follows. First, the course provides a structure for the students through a series of take-home assignments and in-class practices, so that students can make progress on their theses through frequent production of written material which is directly related to their theses. Second, the course provides students an opportunity to orally present their work and receive feedback from instructor and peers. Third, the course introduces students to the ethics, the elements, and the structure of thesis writing. It familiarizes students with academic research process and professional standards. We will discuss the turning of a general topic to a specific research question suitable for an undergraduate thesis, search for suitable data, the

academic standard of citation, literature search and the writing of a literature review, the empirical research, structure of thesis writing and thesis formatting issues.

### 9. Macroeconomics

Targeted Level:	Course Type:
WISE Sophomores	Compulsory
Prerequisite:	Instructors:
Principles of Economics	Dingming Liu

#### Reference Book:

- Western Economics (Volume II), China Higher Education Press & People's Publishing House, 2011.
- ➤ G. Mankiw (2016): *Macroeconomics*, 9. Edition, New York: Worth Publishers.

### Course Description:

This is a course in macroeconomics for the WISE-SOE International Merit Class. The main objective of the course is to deepen your understanding of economic activities at the aggregate level, from the following three aspects. First, we will study the most important models on economic growth, business cycles, and international economics. In addition, we will seek to understand the microeconomic behaviors behind such aggregates as national income and output, unemployment, inflation and economic growth, in order to explore possible solutions to economic problems. Lastly, discussions of past economic events and applications of economic concepts to analyze the real world issues are another main part of this course. The goal is to teach you how to interpret macroeconomic processes in an economically coherent way.

# 10. Principles of Accounting

Targeted Level:	Course Type:
WISE Freshmen	Compulsory
Prerequisite:	Instructors:
Principles of Economics	Xiaoran Ni / Huifeng Chen

# Reference Book:

- > John Wild et al.: Fundamental Accounting Principles, 21th Edition.
- Wu Shuipeng: Principles of Accounting, Economic Sciences Press, 2010.

# Course Description:

This course covers principles of accounting, especially financial accounting. The main focus will be the concepts, methods, and uses. The objectives of the course are:

- 1. To help students develop a sufficient understanding of the basic concepts and principles underlying accounting so that they can apply the concepts in different situations.
- 2. To train students in accounting terminology and methods so that they can interpret, analyze, and evaluate financial statements currently published in corporate annual reports.
- 3. To prepare students for further study such as intermediate accounting, corporate finance, and financial statement analysis.

# 11. Principles of Economics

Targeted Level:	Course Type:
WISE Freshmen	Compulsory
Prerequisite:	Instructors:
/	Jiaming Mao

### Reference Book:

- Wu Yifeng & Yan Pengfei, Western Economics, China Higher Education Press & People's Publishing House.
- Gregory Mankiw, *Principles of Economics*, 7<sup>th</sup> ed., Cengage Learning, 2014.

### Course Description:

This course provides an introduction to the principles and theories of Economics. The course is split between the study of microeconomics, which focuses on the decision making of individuals and firms, and the study of macroeconomics, which examines the behavior of aggregate economic variables such as output, consumption, inflation, and unemployment. The goal of the course is to equip students with a fundamental understanding of how the economy works and allow them to apply basic economic theories and intuition to analyze real life problems. The course serves as a foundation for intermediate micro- and macroeconomics.

## 12. Probability Theory

Targeted Level:	Course Type:
WISE Sophomores	Compulsory
Prerequisite:	Instructors:
Mathematic Analysis	Xuexin Wang

## Reference Book:

- Ross, Sheldon. *A First Course in Probability*. 8th ed. Upper Saddle River, NJ: Prentice Hall, 2009. ISBN: 9780136033134.
- George Casella, Roger L. Berger. Statistical Inference. 2nd ed. Duxbury, 2002.

### Course Description:

This is the first course on probability theory, the part of mathematics that studies random phenomena. We model simple random experiments mathematically and learn techniques for studying these models. From a broader intellectual perspective, probability theory is one of the core subject of mathematics with its own distinct style of logical reasoning, which is important for the future study of statistics, econometrics and other courses.

# 13. Urban Economics

Targeted Level:	Course Type:
WISE Juniors & Seniors	Elective
Prerequisite:	Instructors:
Microeconomics	Xiaofang Dong

- > Jan K. Bruckner, Lectures on Urban Economics, MIT Press, September 9, 2011.
- > Arthur O'Sullivan, Urban Economics, 8th ed., McGraw-Hill Irwin, October 26, 2011.
- > Richard J. Arnott, A Companion to Urban Economic, Blackwell Publishing, October 15, 2007.
- Handbook of Regional and Urban Economics, Volume 4, North Holland, August 4, 2004.

## Course Description:

The field of urban economics addresses a wide variety of questions and topics. At the most general level, it introduces space into economic models and studies the location of economic activity. Urban economics typically cover a wide range of theoretical approaches and policy options. In this course, our primary focus will be on answering general and interesting questions such as, Why do cities exist? How do firms decide where to locate? Why do people live in cities? What determines the growth and size of a city? Which policies can modify the shape of a city? A simple monocentric model will be introduced to give a basic idea what is the difference between the spatial model and traditional economic model. Then we will analyze specific economic problems that arise because we are living in cities, such as crime and poverty, housing, segregation, congestion, pollution, education, and public policy. I highly encourage and value students who can put those economic problems specifically in Chinese background.

# **WISE Undergraduate Program (Spring Semester)**

## 1. Business Communication and Culture II

Targeted Level:	Course Type:
WISE Freshmen	Compulsory
Prerequisite:	Instructors:
/	Katherine Anne Brown

### Reference Book:

Business Communication by Madhukant Jha, Gennext Publication, 2009.

### Course Description:

Business Communication is the second level of a multi-course business communication sequence. This course will continue to build skills in presentation and teamwork that were the focus of the first level. This level will focus on written skills required for successful business communication, particularly developing portfolios, memos, emails, and other written reports. All of these skills will be developed through a variety of problem-based learning activities, allowing students to practice interacting in business situation simulations.

# 2. Development Economics

Targeted Level:	Course Type:
WISE Juniors & Seniors	Elective
Prerequisite:	Instructors:
Principles of Economics, Econometrics	Huang Chen

### Reference Book:

- Essentials of Development Economics 2nd Edition, by J. Edward Taylor and Travis J. Lybbert, 2015, ISBN: 9780520283176
- Economics of Development 7th Edition, by Dwight H. Perkins, Steven Radelet and David L. Lindauer, 2013, ISBN: 9780393934359
- Economic Development 12th Edition, by Michael P. Todaro and Stephen C. Smith, 2014, ISBN: 9781292002972

## Course Description:

This is an intermediate undergraduate course in development economics. The course covers the following topics: the meaning and measurement of economic development, growth theories, poverty and income distribution, the role of geography and institutions, fertility and population growth, agricultural and structure transformation, the role of credit markets and microfinance, health and nutrition, education, female empowerment, trade and globalization.

The course is designed to help students to better understand the relationship between economic theory and real life; forge the foundation for them to pursue relevant careers in government/NGO or academic positions in this field after graduation.

# 3. Economic Growth

Targeted Level:	Course Type:
WISE Juniors & Seniors	Elective
Prerequisite:	Instructors:
Intermediate Macroeconomics	Mouhua Liao

- David N. Weil, Economic Growth, third Edition, Pearson Addison Wesley, 2012 (ISBN: 0321795733): Chapter 1-4, Chapter 6-12.
- Sibabrata Das, Alex Mourmouras and Peter Rangazas, Economic Growth and Development A Dynamic Dual Economy Approach, second Edition, Springer International Publishing AG, 2018 (ISSN: 2192-4333, ISSN: 2192-4341 (electronic)): Chapter 2-4, 6-7, 10.
- Robert J. Barro and Xavier Sala-i-Martin, ECONOMIC GROWTH, Second Edition, The MIT Press, October 2003.

## Course Description:

A theoretical and empirical examination of economic growth and income differences across countries. This course focuses on both the experience of rich countries and the catch-up process of less-developed countries. Topics may include population growth, accumulation of physical and human capital, technological change, openness, the role of government and income distribution. This course use Solow model with exogenous savings rate as a main theoretical framework. We also consider models with endogenous saving rate, such as OLG model and optimization models with a finite period. This course also applies two sectors models to study the impact of differential technological progress and the efficient allocations of labor and capital.

The purpose and mission of this course are: For teaching contents, we emphasize learning methods, testing data and case study. Through the study, students are expected to master the analysis tool for economic growth and be able to make a preliminary analysis on the issues related to growth.

### 4. Environmental Economics

Targeted Level:	Course Type:
WISE Juniors & Seniors	Elective
Prerequisite:	Instructors:
Introductory Economics	Xiaojia Bao

### Reference Book:

- Kolstad, Charles D., 2010. Environmental Economics. Oxford University Press.
- Keohane, Nathaniel O. and Olmstead, Sheila M., 2007. Markets and the Environment. Island Press.

## Course Description:

This course is intended for second-year, junior and senior students in the undergraduate program. The goal of this course is to train students with topics in environmental economics and analytical skills for addressing basic empirical research questions related to environmental economics. Students should be able to analyze basic environmental issues with economic approaches and tools.

# 5. Experimental Economics

Targeted Level:	Course Type:
WISE Juniors & Seniors	Elective
Prerequisite:	Instructors:
Principals of Economics or equivalent courses	Sen Geng

> The Handbook of Experimental Economics, Volume 2, Edited by John H. Kagel and Alvin E. Roth.

### Course Description:

This course consists of two parts. Seventy percent of time will be devoted to the methodology and application of experimental methods in economics. Given the recent growth of interest in behavioral considerations, experiments are increasingly used in economics to study human behavior. With their help we now have a much better understanding of individual and market behavior. Students will overview some of the most important existing experimental work and learn how to design their own experiments and prepare to run them.

Thirty percent of time will be spent on exploring how individuals and firms make financial decisions in a way that deviates from those predicted by traditional financial or economic theory. Specifically, we examine the existence of psychological biases in financial decision-making, and how the insights of behavioral finance sheds light on the behavior of asset prices, corporate finance, and various financial practices.

## 6. Financial Economics

Targeted Level:	Course Type:
WISE Sophomores	Compulsory
Prerequisite:	Instructors:
Probability and Statistics	Qian Han

## Reference Book:

- Bodie, Kane and Marcus (BKM), Investments, 8th Edition.
- > Bodie, Z., R. Merton & D. Cleeton, *Financial Economics* (second Edition), Pearson Education, Inc. Publishing as Prentice Hall, 2009.

## Course Description:

This course is about foundation of finance, financial markets, financial assets (securities) and how they are valued and traded. Financial markets constitute the financial environment in which the firm operates. For the most part, we take the viewpoint of a user of the financial market: an investor, investment advisor, or someone using the market to hedge (reduce) risk.

# 7. International Trade

Targeted Level:	Course Type:
WISE Juniors & Seniors	Elective
Prerequisite:	Instructors:

Intermediate Microeconomics	Luhang Wang
Reference Book:	

- International Economics: Theory and Policy (Volume I), 9<sup>th</sup> Edition, Tsinghua University Press, 2016, ISBN 978-7-302-44233-2.
- International Economics Theory and Policy, by Paul R. Krugman, Maurice Obstfeld and Marc J. Melitz, Ninth Edition.
- Power and Plenty: Trade, War, and the World Economy in the Second Millennium, by Ronald Findlay and Kevin H. O'Rourke, Princeton University Press (August 30, 2009).
- > Empire of Cotton: a Global History, by Sven Beckert, Vintage; Reprint Edition (November 10, 2015).

## Course Description:

This course introduces fundamental concepts in international trade and shows how general tools of economic analysis can be applied in the trade context. More specifically, we will motivate and develop theoretical models to explain why trade happens and what differences it can make. We will cover Ricardo Model, Specific Factor Model, Heckscher-Olin Model, as well as more recent models with imperfect competition and firm heterogeneity. We will also explore the empirical literature to examine how well these models per-form in matching the facts observed in reality. A third goal of this course is to help students obtain a better understanding of the role of government policy in international trade and learn how to evaluate the effectiveness of trade policies.

# 8. Linear Algebra

Targeted Level:	Course Type:
WISE Freshmen	Compulsory
Prerequisite:	Instructors:
/	Jaehong Kim

## Reference Book:

Elementary Linear Algebra with Applications, 9 Edition.

### Course Description:

This is an undergraduate course in linear algebra. Linear algebra is the study of linear systems of equations, vector spaces, and linear transformations. Solving systems of linear equations is a basic tool of many mathematical procedures. In this class, we will concentrate on the mathematical theory and methods of linear algebra. The topics covered included, systems of linear equations, matrix algebra, vector spaces, determinants, eigenvalues and eigenvectors, diagonalization of matrices, and applications.

# 9. Mathematical Economics

Targeted Level:	Course Type:
WISE Juniors	Compulsory
Prerequisite:	Instructors:
Calculus, Linear Algebra	Huihui Li

- Carl P. Simon and Lawrence Blume (1994), Mathematics for Economists. W. W. Norton & Company, ISBN 9780393957334.
- Alpha C. Chiang and Kevin Wainwright (2005), Fundamental Methods of Mathematical Economics, 4th Ed. McGraw-Hill Irwin, ISBN 0-07-010910-9.
- Angel de la Fuente (2000), *Mathematical Methods and Models for Economists*. Cambridge University Press, ISBN 0-521-58512-0.

## Course Description:

This course introduces the mathematical techniques required for studying economics at the senior undergraduate level and presents the applications of these techniques to problems from a wide range of fields in economics. Topics include linear models and basic matrix algebra, univariate and multivariate calculus, unconstrained and constrained optimization, equilibrium analysis, comparative statics, and if time remains, basic dynamic analysis. This course is intended to assist the students to understand mathematical concepts and methods employed in modern economic theory and models, and develop skills to apply mathematical tools to analyze economic problems.

### 10. Mathematical Statistics

Targeted Level:	Course Type:
WISE Sophomores	Compulsory
Prerequisite:	Instructors:
Advanced College Mathematics or Calculus, Probability	Tuo Liu

## Reference Book:

- An Introduction to Mathematical Statistics and Its Applications, Richard Larsen and Morris Marx, 5th Edition, 2012, Pearson. ISBN-13: 978-0-321-69394-5.
- > Statistical Inference, 2nd Edition, George Casella and Roger Berger, 2001, Duxbury Press. ISBN-13: 978-0534243128.
- Introduction to Mathematical Statistics, 7th Edition, Robert Hogg, Allen Craig and Joseph McKean, 2012, Pearson. ISBN-13: 978-0321795434.

## Course Description:

This course is compulsory for students in economics and it is a fundamental course for other statistics and econometrics courses. The aim of this course is to teach students the fundamental knowledge of mathematical statistics. In this course, you will learn: sampling from the normal distributions; order statistics; methods of finding estimators including method of moment estimation and maximum likelihood estimation; properties of point estimators; unbiased estimation; sufficiency and completeness; uniformly minimum-variance unbiased estimator (UMVUE); parametric interval estimation; hypothesis testing; most powerful test; goodness-of-fit test, etc.

## 11. Microeconometrics and Applications

Targeted Level:	Course Type:
WISE Juniors & Seniors	Elective

Prerequisite:	Instructors:
Econometrics	Jiaming Mao
Reference Book:	

/

### Course Description:

This course offers a unified introduction to the principles and methods of statistical learning and causal inference – two areas essential to data analysis in economics. The first part of this course introduces learning theory and a number of modern machine learning methods used for pattern recognition and predictive modeling. The second part introduces the theory of causal inference and surveys frequently used econometric techniques for causal effect learning and program evaluation. Finally, we discuss structural estimation and offer unified perspective on the use of reduced-form and structural econometric methods.

The goal of this course is to equip students with both a solid theoretical foundation, and the tools they need to conduct hands-on empirical research using state-of-the-art technology. The lecture materials are written to be both deep conceptually and easy to follow technically. Throughout the course, methods are demonstrated with applications to actual and simulated problems in various fields of applied economics, such as labor economics, industrial organization, finance, and marketing. Students will learn how to explore and analyze large high-dimensional datasets, choose appropriate methods for answering different types of queries, including associational, causal, and counterfactual, as well as gaining valuable computational skills.

The course spans the fields of econometrics, statistics, and computer science. Although the focus is on the analysis of economic data, the theories and the tools presented should be useful for a wide range of research areas in business and the social sciences.

## 12. Microeconomics

Targeted Level:	Course Type:
WISE Freshmen	Compulsory
Prerequisite:	Instructors:
Principles of Economics	Nan Zhong

## Reference Book:

- Marxism Theoretical Research and Construction Project Group: Western Economics, Higher Education Press, People's Publishing House, 2012.
- Robert S. Pindyck & Daniel L. Rubinfeld: Microeconomics (7th Edition), Tsinghua University Press, 2010.
- Hal R. Varian: Intermediate Microeconomics: A Modern Approach, 8th Edition, 2009.
- Walter Nicholson: Microeconomic Theory: Basic Principles and Extensions, 9th Edition, Peking University Press, 2005.

### Course Description:

Building upon Principles of Economics, this course aims to provide students with comprehensive understandings about the economic decisions by individuals and how individual behavior affects the market. Students will learn the methods of Microeconomic analysis and the important concepts related to Microeconomics, which helps to develop the skills of understanding the real world with the tools taught in this course. The course will be taught in English. After learning this course, students should be able to understand the key insights in the field of Microeconomics. They will

## 13. Socialistic Political Economics

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actors:
niao Hong, Xingxiang Zhang & Jinguang Hou
,

### Reference Book:

Socialistic Political Economics

## Course Description:

This course is a compulsory course for students from IUEC. Based on Marxist Political Economics, Socialistic Political Economics is a systematic analysis of the theory and practice of socialistic economic development. From the perspective of Evolutionary Economics and internationalization, this course combines detailed historical data and case analysis with theory to investigate and analyze the operational rules of major socialistic models in practice. Students are expected to comprehend the historical transition of socialism from utopianism to science and from theory to practice, understand the essence and development of socialistic economy, and grasp the characteristics and development trends of the Chinese model.

## 14. Time Series Analysis

Targeted Level:	Course Type:
WISE Juniors & Seniors	Elective
Prerequisite:	Instructors:
Calculus, Probability and Statistics, Linear regression	Muyi Li

## Reference Book:

- J.D. Hamilton (1994), Time Series Analysis, Princeton University.
- P.J. Brockwell and R.A. Davis (2006), *Time Series: Theory and Methods,* 2nd Edition, Springer.
- Analysis of Financial Time Series (3rd ed.), Ruey S. Tsay, 2010. (http://faculty.chicagobooth.edu/ruey.tsay/teaching/).
- Diebold, Francis X (2015), Forecasting in Economics, Business, Finance and Beyond, http://www.ssc.upenn.edu/~fdiebold/.
- Elliott, Graham and Allan Timmermann (2016), Economic Forecasting, Princeton University Press.

## Course Description:

This is the core course for the third-year students in the sequence of economics, statistics and other related majors. The goal of the course is to let the students understand the fundamental concepts of time series analysis, for example, stationarity, autocorrelation functions and partial autocorrelation functions. The students should master the basic modeling steps: model specification, model estimation, model diagnostic checking and model forecasting. Additionally, they are required to mater the seasonal multiplicative models, how to transform a non-stationary time

series to be a stationary one. They are also required to model multivariate time series models, such as vector autoregressive (VAR) models and do cointegration analysis via vector error correction models (VECM). If time is allowed, some representative nonlinear time series models, such as GARCH, threshold models are also discussed. Finally, the students should know how to professionally analyze time series data in practice and present a term project by R in the end of this semester.

# **Undergraduate Double-Degree Programs (Fall Semester)**

## 1. Actuarial Calculation of Life Insurance

Targeted Level:	Course Type:
Double-Degree Finance & Statistics Students	Elective
Prerequisite:	Instructors:
Probability and Statistics Theory, Interest Theory	Qingxia Li / Zhiqiang Zhang

## Reference Book:

- Actuarial Calculation of Life Insurance, by CIRC, Publisher: China Financial & Economic Publishing House (11/2010), ISBN 978-7-5095-2556-2/F.2174.
- Actuarial Mathematics, by Bowers, N.L., Publisher: Society of Actuaries (May 1/1997.), ISBN-13:978-0938959465.
- Actuarial Mathematics for Life Contingent Risks, by D.M. Dickson, M.R. Hardy and H.R. Waters, Publisher: Cambridge University Press (2009), ISBN-13:978-0-521-11825-5.
- > Theory of Interest, by Kellison, S.G., 2nd Edition, SOA, 1991.
- Actuarial Science of Life Insurance, by Zhang Zhiqiang, China Economy Press, 2001.
- > Actuarial Mathematics of Life Insurance, by Lu Fangxian & Zhang Lin, China Financial and Economy Press, 2006.

### Course Description:

Based on life insurance, the course covers traditional actuarial models and theory of life contingencies, with modern computational techniques with an emphasis on the practical context for the survival models and valuation methods presented. Main content includes: Survival models, Insurance Benefits, Annuities, Premium Calculation, Reserve Valuation, Multiple state models, Policy values, and so forth. We intend for students to learn how to use the actuarial technology solving the practical problem.

# 2. Categorical Data Analysis

Targeted Level:	Course Type:
SOE Statistics Seniors	Elective
Prerequisite:	Instructors:
Probability and Mathematical Statistics	Zhenghui Feng

## Reference Book:

- An Introduction to Categorical Data Analysis. Second Edition. Alan Agresti (2007). John Wiley & Sons.
- > Analysis of Categorical Data. Agresti, A., New York: Wiley, 2002.
- > Generalized Linear Models. 2nd Ed. McCullagh P. and Nelder J., London: CRC Publishers, 1989.
- Introduction to Analysis of Categorical Data translated by Zhang Shumei, Wang Rui & Caoli, China Higher Education Press.
- Practical Multivariate Statistical Methods and SAS by Gao Huixuan, Peking University Press.

## Course Description:

This course deals with statistical models for the analysis of categorical data. It is designed for undergraduate students taking an introductory course in categorical data analysis, which has a low technical level and does not require familiarity with advanced mathematics such as calculus or matrix algebra. Topics to be covered include introduction to categorical data, inference for contingency tables, generalized linear models, with emphasis on logistic regression and

logit models, and so on. The topics in this course can be chosen as graduate thesis (students will be supervised in the following semester).

# 3. Analysis of Regression

Targeted Level:	Course Type:
Double-Degree Statistics Juniors	Compulsory
Prerequisite:	Instructors:
Calculas, Algebra, Probability and Statistics	Lvzhu Shen / Weixuan Zhu

#### Reference Book:

- > Jeffrey M.Wooldridge, Introductory Econometrics: A Modern Approach, China Renmin University Press, 2015.
- Applied Linear Regression Models, Fourth Edition, M.H.Kutner; C.J.Nachtsheim, McGraw-Hill, 2004
- Introduction to Linear Regression Analysis, 5th Edition Douglas C. Montgomery, Elizabeth A. Peck and G. Geoffrey Vining, Wiley, 2012. ISBN: 978-0-470-54281-1

## Course Description:

Regression analysis is one of the most important subjects in Statistics. It lays the foundation of many other advanced statistic courses. It is based on probability theory and statistics knowledge, and it performs analysis and inference to random phenomena.

# 4. Application of Financial Econometrics

Targeted Level:	Course Type:
Double-Degree Finance, Economics & Statistics Juniors	Elective
Prerequisite:	Instructors:
Finance, Introductory Econometrics, Financial	Dengta Chen / Yanan He
Economics, Principles of Economics	

## Reference Book:

- > Brooks, Chris, 2008. Introductory Econometrics for Finance, 2/e. Cambridge University Press, New York
- Introductory Econometrics for Finance, Third Edition, by Chris Brooks, Cambridge University Press, 2014.
- Advanced Econometrics and Stata Application (2<sup>nd</sup> Edition) by Chen Qiang, China Higher Education Press, 2014.

## Course Description:

This course focuses on using and applying the software, not programming. The basic knowledge of econometric analysis and the operation method of software are introduced. To complete a term paper, students are required to process data by code, rather than the interactive way (menu dialog box).

## 5. Business Communication and Culture

Targeted Level:	Course Type:
Double-Degree Economics, Finance & Statistics Students	Compulsory
Prerequisite:	Instructors:

- Success with BEC: Vantage: Student's Book by John Hughes. Cengage Learning. 2008.
- > Success with BEC: Higher: Student's Book by Paul Dummett. Cengage Learning. 2008.
- Business Communication, Madhukant Jha (voted 1st choice).
- > Alternative: Business Communication, Scot Ober.
- > An Introduction to Human-Communication Theory, G. A. Borden, Brown Company, Dubuque, Iowa, 1971.
- Business Communication Today, 3rd Edn., C.L.Bove'e & J.V.Thill. McGraw-Hill, Inc., 1992.
- Essentials of Management: An International Perspective (8th Edn.), H. Koontz, H. Weihrich, Tata McGraw-Hill, 2010.
- Communication for Business & the Professions, P.H. Andrews & J.E. Baird, Jr., 8th Edn., Waveland Press, 2005.
- > Communicating for Results: A Canadian Student's Guide, C. Meyer, 3rd Edn., Oxford U.P., 2013.
- Competitive Communication: A Rhetoric for Modern Business, Barry Eckhouse, Oxford U. P., 1999.
- Business and Professional Communication: Plans, Processes, and Performance, J.R.Disanze & N.J.Legge, Allyn & Bacon, 2000.
- McQuail's Mass Communication Theory, 4th Edition, Sage Publications, 2000.
- > The ESL/ELL Teacher's Book of Lists 2nd Edition, J. E. Kress, Publisher: Jossey-Bass, 2008. Language: English, ISBN-10: 0470222670, ISBN-13: 978-0470222676.

### Course Description:

Business Communication and Culture prepares students for communication in the business world through discussion of and practice with skills necessary in a variety of business situations. It will help students identify and understand culture and empathy, and how they are applicable in business contexts. There will be a focus on fundamental communication concepts and practices to develop organized, effective communication skills. Topics will be addressed through situational practice, focused on identifying the problem, the appropriate process to address it, and producing a product, being a written or verbal business form, in solution.

# 6. Chinese Economy

Targeted Level:	Course Type:
Double-Degree Finance Juniors	Elective
Prerequisite:	Instructors:
/	Pei Li

### Reference Book:

Naughton, B. 2007. The Chinese Economy: Transitions and Growth. MIT Press.

# Course Description:

This course introduces students to the transformation of China's economy into a market economy with its special characteristics. In addition to the review of many important historical episodes, we intend to apply economic concepts and models to analyze various aspects of China's economic transition and development. The proposed topics include household responsibility system, township and village enterprises, SOE reform and privatization, international trade and FDI, labor market development, urbanization, financial market development, poverty and income inequality, pollution and institutions.

# 7. Computational Data Analysis Using Software

Targeted Level:	Course Type:
Double-Degree Economics, Finance & Statistics Students	Compulsory
Prerequisite:	Instructors:
Probability and Statistics, Econometrics	Dengta Chen / Yang Ji / Yu Liu

### Reference Book:

- > Online Resources: Julia 1.0 Programming; Think Julia.
- Kohler U, Kreuter F. Data analysis using Stata, Stata Press, 2012.
- Long, The workflow of data analysis using stata, Stata Press, 2009.
- > Baum, C. F. An introduction to modern econometrics using Stata. Stata Press, 2006.
- Acock A C. A Gentle Introduction to Stata. Stata Press Books, 2012.
- Cameron A C, Trivedi P K. Microeconometrics Using Stata. Stata Press, 2009.
- Stata Manual
- > Statistics Analysis with Stata

## Course Description:

In this course, we will discuss the computation field of data science with broad coverage. We introduce programming, and the applications of package and statistics or econometric software. We emphasize the latest Julia programming. Attentions are paid not only to the explanation of related theories and knowledge in programming, but also to the practice and ability development of programming skills. Python, R, EViews and Stata are brief discussed.

On one hand, the students are required to understand the academic rule of data analysis, such as replicable and readable of their codes. On the other hand, the students are required to master the basic workflow of data analysis, such as data cleaning, data preparing, data presenting and regression.

## 8. Econometrics I

Targeted Level:	Course Type:
Double-Degree Economics & Finance Students	Compulsory
Prerequisite:	Instructors:
Basic mathematical skills, calculus, mathematical	Andrew Adrian Pua / Yanan He
economics, introductory statistics	

### Reference Book:

- > Statistics for Business: Decision Making and Analysis, Second Edition, by Robert Stine and Dean Foster.
- All of Statistics: A Concise Course in Statistical Inference by Larry A. Wasserman.
- Statistics by David Freedman, Roger Pisani, and Robert Purves.
- Stat Labs: Mathematical Statistics Through Applications by Deborah Nolan and Terry Speed.
- Introduction to Statistics and Econometrics by Takeshi Amemiya.
- Introductory Statistics with Randomization and Simulation by David M. Diez, Christopher D. Barr and Mine Cetinkaya-Rundel.
- Lecture Notes on Probability and Statistics Theory for Economists, by Yongmiao Hong, 2013.
- Statistical Inference, Casella, G. and Berger, R. L. Duxbury Press, 2002.

- > Introduction to Mathematical Statistics, Robert V. Hogg and Allen T. Craig. Pearson Education, 2004.
- Probability and Mathematical Statistics (4<sup>th</sup> Edition) by Sheng Zhou et al., China Higher Education Press, 2010.

## Course Description:

This course introduces double-degree students to the practice and theory of probability and statistics. It serves as a foundation for concepts to be used in advanced courses in economics and econometrics. The course is divided into two parts: an introductory probability and statistics course for students who have not been exposed properly to the main concepts (especially using the English language) and an intermediate version of a probability and statistics course which focuses on the major theoretical ideas that underline statistical methods used in research and in practice. At the end of the course, I hope that you are prepared to study more advanced courses by yourself or along with an instructor. I also hope that you become a more informed consumer and user of statistics.

### 9. Financial Economics

Targeted Level:	Course Type:
Double-Degree Economics, Finance & Statistics Students	Elective/Compulsory
Prerequisite:	Instructors:
Probability and Statistics	Qian Xi / Kuo Zhang / Sifu Huang

## Reference Book:

- ➤ Bodie, Kane and Marcus (BKM), *Investments*, 8th Edition.
- Zvi Bodie, Robert C. Merton and David L. Cleeton, *Financial Economics*, English version, 2nd Edition, 2011-1, published by Renmin University Press, authorized by Pearson Education. ISBN 9787300131740.

# Course Description:

This course is about foundation of finance, financial markets, financial assets (securities) and how they are valued and traded. Financial markets constitute the financial environment in which the firm operates. For the most part, we take the viewpoint of a user of the financial market: an investor, investment advisor, or someone using the market to hedge (reduce) risk.

## 10. Financial Risk Management

Targeted Level:	Course Type:
Double-Degree Economics, Finance & Statistics Students	Elective
Prerequisite:	Instructors:
Intermediate Econometrics, Intermediate Finance,	Tian Xie
Intermediate Macroeconomics, Intermediate	
Microeconomics	

# Reference Book:

- Kevin Dowd (2005), Measuring Market Risk (Second Edition), John Wiley & Sons, Ltd., ISBN: 0-470-01303-6.
- Michel Crouhy, Dan Galai, Robert Mark (2014), The Essentials of Risk Management (Second Edition), McGraw-Hill Education. ISBN: 0-071-81851-0.

### Course Description:

This course provides an overview of Risk Management (RM) principals. The goal of the course is to teach you the basics of the RM theory and practice of RM techniques. The course will build upon the knowledge and skills you gained in intermediate finance and econometrics courses. Students will learn how to interpret, design, and execute empirical financial risk management projects using MATLAB software and skill building in critical thinking and problem solving will also be emphasized. We will additionally explain important issues and topics that recently happened in the global financial markets.

# 11. Financial Time Series Analysis

Targeted Level:	Course Type:
Double-Degree Economics & Finance Sophomores	Compulsory
Prerequisite:	Instructors:
Probability and Statistics, Linear regression, Linear algebra	Juan Lin / Yaxing Yang

### Reference Book:

- Analysis of Financial Time Series, Ruey S. Tsay, 3nd Edition, Wiley, 2010.
- Time Series Analysis, J.D. Hamilton, Princeton University Press, 1994.
- > Time Series Analysis with applications in R, Jonathan D. Cryer and Kung-Sik Chan., 2nd Edition, Wiley, 2008.
- > Time Series: Theory and Methods, P.J. Brockwell and R.A. Davis, 2nd Edition, Springer, 2006.
- > Time Series Analysis: Forecasting and Control, Box, Jenkins, and Reinsel, 4th Edition, Wiley, 2008.

## Course Description:

This course is an undergraduate level introductory course on the methods of time series analysis, building upon students' background knowledge in statistical inference and regression analysis. This course will focus on the modelling of time series and its application in finance. We will first introduce some characteristics of financial time series data, then give some important concepts in time series analysis. Based on this, we will introduce the methods of both univariate and multivariate time series and their applications.

## 12. History of Economic Thought

Targeted Level:	Course Type:
Double-Degree Economics Students	Elective
Prerequisite:	Instructors:
Principles of Economics	Jinzhong Lin

# Reference Book:

The Evolution of Economic Thought, by Stanley L. Brue and Randy R.Grant, 8<sup>th</sup> ed., Peking University Press, 2014.

### Course Description:

This course introduces the development history of various economic thoughts. It aims to help students have an in-depth understanding about the economics discipline from the historical perspective. Through this course, students

could learn the historical background, origins, important opinions and influences of main economic thoughts. By comparing the differences and links among these thoughts, students can also better comprehend the current economic theories. In class, students will also be guided to read some famous works written by representatives of major economic thoughts to enhance their comparative analysis ability.

### 13. Intermediate Macroeconomics

Targeted Level:	Course Type:
Double-Degree Economics Students	Compulsory
Prerequisite:	Instructors:
Essentials of Economics, Advanced Mathematics	Changlin Yu

### Reference Book:

- > Western Economics, China Higher Education Press.
- ➤ G. Mankiw (2016): Macroeconomics, 9. Edition, New York: Worth Publishers.

## Course Description:

Macroeconomics studies economic activities at the aggregate level and macroeconomic policies. As a core course of Economics and Management, it aims to deepen your understanding of the fundamental principles and analytical methods of macro-economy, and enhance your abilities to analyze real macroeconomic phenomena and economic policies with macroeconomic principles.

## 14. International Finance

Targeted Level:	Course Type:
Double-Degree Economics & Finance Students	Elective
Prerequisite:	Instructors:
Intermediate Macroeconomics, Intermediate	Hao Jin / Dingming Liu
Microeconomics, Econometrics II	

### Reference Book:

- Paul R. Krugman, Maurice Obstfeld, Marc Melitz (2014): International Economics: Theory and Policy, 10th Edition, Pearson. ISBN-13: 978-0133423648
- Stephanie Schmitt-Grohe, Martin Uribe and Michael Woodford (2016): International Macroeconomics, Manuscript, Columbia University.
- Robert C. Feenstra and Alan M. Taylor: International Macroeconomics, 2nd Edition, Worth Publishers

## Course Description:

This course introduces basic empirical facts and theoretical frameworks to study topics in international financial markets. Specific topics include balance-of-payments accounting, international capital flows, exchange rate determinations, and macroeconomic policy in open economies. Students will have the opportunity to develop insight on how the global financial markets behave, how these behaviors affect their life, and analyze actual problems in open economy macroeconomic policy.

# 15. International Trade: Theory and Policy

Targeted Level:	Course Type:
Double-Degree Economics Students	Elective
Prerequisite:	Instructors:
Principles of Economics, Microeconomics, International	Weibin Huang
Economics	

## Reference Book:

International Trade by Robert C.Feenstra, Alan M.Taylor, China Renmin University Press, 2017, ISBN 9787300253275

### Course Description:

Through this course, students can comprehend the fundamental theories and knowledge of international trade, and better understand relevant policy effects and serious problems related to the global flow of factors of production, the global outsourcing of manufacturing and services, the general equilibrium analysis of international trade as well as the relationship between international trade and economic development.

## 16. Microeconometrics and Application

Targeted Level:	Course Type:
Double-Degree Economics, Finance & Statistics Students	Elective
Prerequisite:	Instructors:
Microeconomics, Econometrics	Maoliang Ye

## Reference Book:

- > Joshua D. Angrist, Jörn-Steffen Pischke. (2014). *Mastering Metrics: The Path from Cause to Effect.* Princeton University Press.
- Esther Duflo, *Handout on Empirical Methods*, 2002.
- Colin Cameron and Pravin K. Trivedi, Microeconometrics Using Stata.
- E. Duflo, R. Glennerster, and M. Kremer. (2006), *Using Randomization in Development Economics Research: A Toolkit*, NBER Technical WP No. 333.
- J.D. Angrist and A.B. Krueger. (1999) Empirical strategies in labor economics, in the Handbook of Labor Economics, Vol. 3A, O. Ashenfelter and D. Card, eds., Elsevier, 1278-1366.

## Course Description:

This is an advanced undergraduate course in microeconometrics and its applications, appropriate for double-degree students at WISE with preparation in intermediate microeconomics and econometrics. Based on all the econometrics tools studied in the previous terms, this course prepares our students for applying the most appropriate econometric tools (especially quasi-experimental and experimental) in empirical works using micro data.

This course will be application oriented. The application topics and examples come from applied microeconomics especially labor and development economics.

### 17. Political Economics

Targeted Level:	Course Type:
Double-Degree Economics, Finance & Statistics Students	Compulsory
Prerequisite:	Instructors:
/	Genrong Liu

#### Reference Book:

Introduction to Marxist Political Economy, People's Publishing House, 2011

## Course Description:

Political Economy (Capitalism) is an important part of the Marxist theoretical system, is the basic discipline of economics, and is an important theoretical course for training successors for the socialist cause in the new era. By analyzing the process of capitalist reproduction and its contradictions, students can have a deep understanding of the capitalist mode of production and its history and development trends. The main contents involved include: the duality of labor, the two factors of commodities, and the determination of the value of commodities; The nature of money and its functions and currency circulation laws; Market economy and law of value; Capitalist economic system and its evolution; The production of surplus value, the form of capitalist wages; Capital circulation and turnover; Allocation of residual value; Capitalist economic crisis; The history and trend of capitalist development; and so on.

# 18. Principles of Economics

Targeted Level:	Course Type:
Double-Degree Economics & Finance Sophomores & Juniors	Compulsory
Prerequisite:	Instructors:
Basic algebra and mathematic courses	Huang Chen / Sifan Zhou / Huanjun Zhu & Shuheng Lin

### Reference Book:

- Principles of Economics, 7th Edition, 2014, by Gregory Mankiw, published by Cengage Learning. ISBN: 9781285165875.
- South-Western Cengage Learning, 2012.
- > The Pearsons Series in Economics, 2014.

### Course Description:

This course provides an introduction to a broad range of concepts, theories and analytical techniques in micro- and macro-economics. Microeconomics analyze the decision-making process of individuals (households and firms). Macroeconomics analyze economies in a single industry or the whole society. For microeconomics, a consumer theory and a producer theory will be introduced to generate supply and demand functions for understanding how the market economic works under different market structures. Macroeconomic issues regard the interaction of goods and services markets, labor and money at aggregate levels. The role of government policy to address microeconomic market failures and macroeconomic objectives will be examined.

## 19. Principles of Statistics

Targeted Level:	Course Type:
Double-Degree Economics Students	Compulsory
Prerequisite:	Instructors:
Advanced Mathematics, Economics	Juan Wen

- > Statistics, Chen Zhenzhen, Xiamen University Press.
- > Statistics, Huang Liangwen, China Statistics Press.

### Course Description:

This course is one of the core curriculums of Economics and Management. It is also a very important basic specialty course for the students who major in statistic-related specialties. The key points of this course are the theories and methods of both descriptive statistics and inferential statistics and their application in the economic and management. The teacher should focus on guiding students to think independently about the theories and practical problems. For some specific application of statistical theories and methods in specific areas, for example: dependency relation analysis and factor analysis, time series analysis and sampling technique method are the key point and most difficult part of this course. In the teaching of this course, teachers should use specific cases to better explain these content.

# 20. Probability and Mathematical Statistics

Targeted Level:	Course Type:
Double-Degree Economics Students	Compulsory
Prerequisite:	Instructors:

## Reference Book:

- > Probability and Statistics, Li Jie et al.., Southwestern University of Finance and Economics Press, 2013.
- Probability and Statistics, Mao Shisong et al., Higher Education Press, 2012.

## Course Description:

Through this course, you are expected to understand the fundamental theories, concepts and methodology of probability and mathematical statistics. Additionally, you could improve your basic computing skills and mathematical experiment methods.

# 21. Probability Theory

Targeted Level:	Course Type:
Double-Degree Statistics Students	Compulsory
Prerequisite:	Instructors:
/	Guannan Liu
Reference Book:	

- Ross, S., A First Course in Probability, 8th Edition, Prentice Hall, ISBN: 9780136033134.
- > Casella, G. and R. Berger, Statistical Inference, 2nd Edition, Duxbury Press, ISBN: 0534243126.

## Course Description:

Probability Theory has become a useful tool in economics, finance and many other fields. This course is designed as an elementary introduction to the theory of probability, which is necessary for the subsequent study of statistics and econometrics. Topics include basic principles of combinatorial analysis, axioms of probability theory, conditional probability, random variables, expectation, law of large numbers, and central limit theorem.

## 22. Public Economics

Targeted Level:	Course Type:
Double-Degree Economics Students	Compulsory
Prerequisite:	Instructors:
Political Economics, Principles of Economics,	Yang Yue / Guoqing Zhu
Microeconomics, Macroeconomics	

### Reference Book:

- Jean Hindriks' and Gareth Myles' Intermediate Public Economics, MIT Press.
- Stiglitz, Joseph E., and Joseph E. Stiglitz. Economics of the public sector, W. W. Norton & Company.

### Course Description:

This course introduces the fundamental principles of public economics. Based on your original economic knowledge, you are expected to deepen your understanding of public economics and lay a solid foundation for your future career.

## 23. Mathematical Economics

Targeted Level:	Course Type:
Double-Degree Economics Students	Compulsory / Elective
Prerequisite:	Instructors:
Calculus, Linear Algebra	Xiaolin Mei / Xirui Zhang

### Reference Book:

- Carl P. Simon and Lawrence Blume, Mathematical for Economists, 1994, International Student Edition, ISBN 978-0-393-95733-4.
- Alpha C. Chiang and Kevin Wainwright, Fundamental Methods of Mathematical Economics, 4th Edition.

# Course Description:

This course is designed to introduce a wide range of mathematical techniques used in undergraduate level economics courses. Topics include the tools used to analyze equilibrium models, comparative-static models, optimization, and to a limited extent, dynamic models. The course will extensively employ linear algebra and basic calculus.

## 24. Stochastic Process

Targeted Level:	Course Type:
Double-Degree Finance & Statistics Students	Elective
Prerequisite:	Instructors:
Financial Engineering, Probability and Mathematical	Jian Chen
Statistics	
D-f DI	

## Reference Book:

/

## Course Description:

This course is usually considered as a dynamic part of probability, studying the dynamic characteristics of stochastic phenomena. This discipline has been widely used in social science, natural science and economics and management. Through this course, students can deepen their understanding of basic theories, thoughts and methods of stochastic process and use the knowledge to solve stochastic problems, so as to improve research and problem solving abilities. They can also enhance their abilities of building mathematical stochastic models, analyzing and solving problems and be prepared for further applied theory courses.

## 25. Taxation

Targeted Level:	Course Type:
Double-Degree Economics Students	Elective
Prerequisite:	Instructors:
/	Yanping Yu

## Reference Book:

Taxation by Yang Bin, Science Press, 2017.

## Course Description:

Economics students should have relatively strong market economic awareness and adaptable abilities, understand fundamental economic theories and be capable of working at different economic departments of government in the future. As the modern economy is closely related to taxation, this course aims to teach the students to think about economic problems with taxation and improve their professional skills.

# 26. Time Series Analysis and Application

Targeted Level:	Course Type:
Double-Degree Statistics Students	Compulsory
Prerequisite:	Instructors:
Probability, Mathematical Statistics	Changquan Huang
Reference Book:	

Cowpertwait P. S. P. and A.V. Metcalfe (2009). *Introductory Time Series with R.* New York: Springer. ISBN 978-0-387-88697-8.

# Course Description:

This course introduces the basic concepts and methods of time series analysis, including linear difference equations, lag operator, stationarity, ARMA model, ARIMA model, GARCH model, and so on.

Through studying this course, Students are required to master the basic concepts and methods of time series analysis and can analyze and model time series datasets with R and make case studies.

# **Undergraduate Double-Degree Programs (Spring Semester)**

## 1. Applied Nonparametric Statistics

Targeted Level:	Course Type:
Double-Degree Statistics Students	Elective
Prerequisite:	Instructors:
Probability and Statistics	Yingxing Li
Reference Book:	

/

## Course Description:

This is an introductory course on nonparametric statistics for students who already have a decent knowledge of basic statistics and probability. We start from introducing standard nonparametric techniques based on signs and ranks, including one sample, two sample, matched pairs, one way layout, two way layout procedures and various tests of independence and association. We then proceed to discuss bootstrap methods, density estimation, nonparametric regression and robust estimation. Students are expected to have fresh perspective on the classical statistical estimation and inferential theory, accumulate more real data analysis experience and apply the modern nonparametric techniques they learn to do empirical research.

## 2. Business Communication and Culture

Targeted Level:	Course Type:
Double-Degree Economics, Finance & Statistics Students	Compulsory
Prerequisite:	Instructors:
/	Roslyn Bowers / Roy Charles Meek

## Reference Book:

- Excellence in Business Communication (Thill and Bovee).
- > Competent Communication (O'Hair).
- Business Communication for Success This text was adapted by The Saylor Foundation under a Creative Commons Attribution-Non-Commercial-Share-Alike 3.0 License without attribution as requested by the work's original creator or licensee.
- Essentials of Management: An International Perspective; H. Koontz, Heinz Weihrich.
- International Management: Culture, Strategy, and Behaviour; F. Luthans, J. P. Doh.
- International Business; Wild, Wild & Han.
- Business Communication by Madhukant Jha.
- Business Communication by Scot Ober.

## Course Description:

This course, Business Communication and Culture seeks, among other things, to give students hands on experience in how businesses operate and function through 1"the sharing of information between people within and outside the organization that is performed for the commercial benefit of the organization." It seeks to explore and deepen the students' understanding and knowledge of not only the field of communication, but also, in a broader

sense, how communication relates to the international business society and its connection to bringing together the cultures of the Eastern and Western world, by initiating an interactive communicative process of sharing knowledge and information and creating experiential opportunities, which will give students the opportunity to make and create meaning.

## 3. The Chinese Economy: Transitions and Growth

Targeted Level:	Course Type:
Double-Degree Economics Juniors	Elective
Prerequisite:	Instructors:
/	Derong Zhang

### Reference Book:

- Naughton, Barry. 2007. The Chinese Economy: Transitions and Growth. Cambridge, Mass.: The MIT Press.
- Wu Jinglian, The Course of Modern Chinese Economy, 2010, Shanghai Far East Press.

## Course Description:

Building from the ground up, it covers first the endowments, legacies, economic systems, economic growth and structures, labor, and living standards of the Chinese economy. It then discusses the specific sectors, such as the rural and urban economy, energy, international trade and foreign investment, macroeconomic features, and financial systems.

## 4. Chinese Economy

Targeted Level:	Course Type:
Double-Degree Economics Juniors	Elective
Prerequisite:	Instructors:
/	Pei Li

## Reference Book:

Naughton, B. 2007. The Chinese Economy: Transitions and Growth. MIT Press.

## Course Description:

This course introduces students to the transformation of China's economy into a market economy with its special characteristics. In addition to the review of many important historical episodes, we intend to apply economic concepts and models to analyze various aspects of China's economic transition and development. The proposed topics include household responsibility system, township and village enterprises, SOE reform and privatization, international trade and FDI, labor market development, urbanization, financial market development, poverty and income inequality, pollution and institutions.

## 5. Commercial Banking

Targeted Level:	Course Type:
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Double-Degree Economics Students	Elective
Prerequisite:	Instructors:
/	Ming Zheng

Bank Management & Financial Services (9th Edition), by Peter S. Rose., Sylvia C. Hudgians, Dai Gguoqiang. Mechanical Industry Press, (July, 2016), ISBN 978-7-111-54085-4.

# Course Description:

Combining the current macroeconomic (economic downturn) and financial environment (strict supervision and de-leverage), the system explains the operation and management of commercial banks, explains and discusses openly the challenges and transformations faced by commercial banks, and the era of big data and the Internet. The discussion and explanation of the impact of finance on the experience management of commercial banks, systematically explain the performance evaluation, financial statements, asset and liability management, risk management and liquidity management of commercial banks, and examine the banks from the perspectives of assets and liabilities. Management and management, and forecast and discuss the development trend of the global banking industry.

# 6. Corporate Finance

Targeted Level:	Course Type:
Double-Degree Economics, Finance & Statistics Students	Elective
Prerequisite:	Instructors:
Investments	Jiaquan Yao

## Reference Book:

- Financial Markets and (Irwin/McGraw-Hill, 2002) Corporate Strategy, by Mark Grinblatt and Sheridan Titman
- Richard A. Brealey, Stewart C. Myers, and Franklin Allen, *Principles of Corporate Finance* (10th ed.), Irwin/McGraw-Hill, 2011.
- Stephen A.Ross, Randolph W.Westerfield, Bradford D.Jordan: Corporate Finance, 2015.
- > ZviBodie: Investments [M]. 2015.

## Course Description:

The objective of this course is to develop an understanding of the decisions financial managers face. In this course we will approach problems from the perspective of the Chief Financial Officer. We will focus on decisions concerning raising money (equity, debt, convertible bonds, etc.), and spending money (capital budgeting, acquisitions). The first part of the course will deal with real investment decisions (capital budgeting), while the second part will address decisions about how to finance those investments (capital structure). In the final part we will talk about mergers and acquisitions, which have both investment and financing implications.

Understanding CFO-type decisions will be helpful long before you become a CFO. For example, if you are working at a treasury group of a corporation, the material is directly relevant. If you are an investment banker you need to understand the rationale for designing and issuing securities. If you are in marketing or production, evaluating projects and understanding how the CFO makes her decisions are important. Finally if you are in consulting, capital budgeting and capital structure decisions will be the main agenda in many of your contracts.

Much of the material will be presented using simple examples designed to demonstrate how financial decisions

can create, destroy, or modify value. Homework assignments will expand on these examples. However, the main issues we cover are conceptual. This is not the sort of class where solving a lot of exercises is useful; rather, it is important to master the main concepts.

## 7. Data Mining

Targeted Level:	Course Type:
Double-Degree Statistics Students	Compulsory
Prerequisite:	Instructors:
Probability Theory, Mathematical Statistics	Kuangnan Fang / Hongli Guo
Deference Books	

#### Reference Book:

- James G, Witten D, Hastie T, et al. An introduction to statistical learning. New York: springer, 2013.
- Hastie, Tibshirani, and Friedman, The Elements of Statistical Learning: Data Mining, Inference, and Prediction, Springer.
- Pang-Ning Tan, Michael Steinbach, Vipin Kumar, 2011.1.
- Pang-Ning Tan, Michael Steinbach, Vipin Kumar. Introduction to Data Mining. China Machine Press, 2010.9.
- > Jiawei Han, Micheline Kamber, Jian Pei, 2012.7.
- Jiawei Han, Micheline Kamber, Jian Pei. Data Mining: Concepts and techniques. China Machine Press, 2012.3.

### Course Description:

This course provides an accessible overview of the field of data mining and statistical learning, an essential toolset for making sense of the vast and complex data sets that have emerged in fields ranging from biology to finance to marketing to astrophysics in the past twenty years. This course presents some of the most important modeling and prediction techniques, along with relevant applications. Topics include linear regression, classification, resampling methods, shrinkage approaches, tree-based methods, support vector machines, clustering, and more. Color graphics and real-world examples are used to illustrate the methods presented. Since the goal of this course is to facilitate the use of these statistical learning techniques in science, industry, and other fields, it contains a tutorial on implementing the analyses and methods presented in R, an extremely popular open source statistical software platform.

## 8. Econometrics

Targeted Level:	Course Type:
Double-Degree Economics Students	Compulsory
Prerequisite:	Instructors:
Economics, Statistics	Lvzhu Shen

## Reference Book:

Essentials of Econometrics (4<sup>th</sup> Edition), China Machine Press, 2010.

### Course Description:

This course aims to help students understand the development of econometrics and its role in real economic jobs, grasp the basic ideas of adopting econometrics to analyze economic problems, comprehend the fundamental principles of econometric modeling, and apply theories and methodologies to resolve real problems. Through this course, students would be familiar with the basic content and procedure of econometric analysis and be equipped with

the capabilities to adopt econometric analysis software and methods to quantitatively analyze real economic problems, so as to lay a solid foundation for advanced econometrics courses.

#### 9. Econometrics II

Targeted Level:	Course Type:
Double-Degree Economics & Finance Students	Compulsory
Prerequisite:	Instructors:
Econometrics I	Jiayi Wen

#### Reference Book:

- Introduction to Econometrics (3rd Edition), James H. Stock and Mark W. Watson, 2012
- > Introductory Econometrics: A Modern Approach (6th Edition), Jeffrey M. Wooldridge, 2017
- Microeconometrics Using Stata (Revised Edition), A. Colin Cameron and Pravin K. Trivedi, 2010

### Course Description:

Econometrics II introduces multiple regression methods for analyzing data in economics and related disciplines to undergraduate students. In the first part, this course introduces linear regression model, and how to estimate the linear regression model based on a random sample. The main focus of this course will be the parameter estimation and hypothesis test under sample with sufficiently large observations. In the second part of the course, extensions include regression with instrumental variables regression, discrete random variables, and regression with time series data. This part will equip students with deeper understanding on causal effect and endogeneity, and with the ability to apply regression analysis to micro data and time-series data. The objective of this course for students is to learn how to conduct and how to criticize empirical studies in economics and related fields.

### 10. Essentials of Economics

Targeted Level:	Course Type:
Double-Degree Economics Students	Compulsory
Prerequisite:	Instructors:
/	Changwei Mo

### Reference Book:

Western Economics, China Higher Education Press, 2016.

# Course Description:

Essentials of Economics is an introductory course of modern economics. It aims to help students understand the fundamental ideas, concepts and analytical methods of modern economics, and enhance their basic investigation and analysis skills on real economic phenomena and problems, so as to lay a solid foundation for their further economic study.

### 11. Financial Derivatives

rangotoa zoron	Targeted Level:	Course Type:
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Double-Degree Economics, Finance & Statistics Students	Elective
Prerequisite:	Instructors:
/	Yubo Liu
/	Yubo Liu

- ▶ John C. Hull, *Fundamentals of Futures and Option Markets*, 8<sup>th</sup> Edition, 2010, Pearson Education Inc. Alternatively, you may use 7<sup>th</sup> Edition.
- Robert A. Jarrow and Arkadev Chatterjea, *An Introduction to Derivative Securities, Financial Markets, and Risk Management*, 2013, WW Norton & Co.

# Course Description:

Welcome to Financial Derivatives! This subject is an introduction to derivative securities. The first half of the subject covers options, including option payoffs, arbitrage bounds, trading strategies, the binomial model, the Black-Scholes-Merton model and its relationship to the binomial model, American options and dividends, limitations of the binomial and Black-Scholes-Merton models. The second half covers futures/forwards, e.g. the mechanics and trading, price determination, and hedging strategies, and swaps (definition and valuation). The overall aim of this subject is to provide a general understanding of the pricing of derivative securities. In doing so, we will mostly focus on the basic option types and futures (forwards). For the most part, we will not be spending time on the theoretical side of the derivative pricing. Rather, the focus will be on understanding pricing formulae and their applications via examples.

#### 12. Financial Economics

Targeted Level:	Course Type:
Double-Degree Economics Students	Compulsory
Prerequisite:	Instructors:
Macroeconomics, Microeconomics	Shan'ang Chen
D-f D/-	

### Reference Book:

Zvi Bodie, Robert C. Merton and David L. Cleeton, *Financial Economics*, 2nd Edition, 2011-1, published by Renmin University Press, authorized by Pearson Education. ISBN 9787300131740.

#### Course Description:

This course divides the financial system from the functional perspective. It discusses some basic financial problems, such as the introduction to finance and financial system, the allocation of time and resources, valuation model, risk management and portfolio theory, asset pricing, and corporate finance. In this course, students can quickly understand the logical relationship among each part of finance by adopting the unified analytical framework to investigate financial problems.

# 13. Financial Statement Analysis

Targeted Level:	Course Type:
Double-Degree Economics & Finance Students	Elective
Prerequisite:	Instructors:
Principles of Accounting	Yue Pan

- Easton, McAnally, Sommers and Zhang, Financial Statements Analysis and Evaluation, Third Edition, Cambridge Business Publishers, ISBN 978-1-61853-009-7.
- > CFA Institute, CFA Program Curriculum Level 1 Book 3: Financial Reporting and Analysis.

#### Course Description:

Through this course, you can deepen your understanding of financial statements and grasp relevant reading skills to capture the key financial information quickly. You'll also learn how to evaluate the quality and distinguish the true and false information of financial statements. This course will teach you the methods and tools to analyze financial statements to improve the abilities of evaluating enterprise operation results and financial status. Financial statement analysis is an analysis tool of management, which could be widely adopted to financial management, investment management and enterprise management. Financial analysis information could optimize enterprise's operation, management and decision making.

### 14. Fixed-Income Securities

Targeted Level:	Course Type:
Double-Degree Economics & Finance Students	Elective
Prerequisite:	Instructors:
Principles of Finance	Zhiyuan Lin

#### Reference Book:

- Fabozzi, F.J.2016. Bond Markets, Analysis, and Strategies, 9th Edition, Pearson Education
- > Benninga, S., 2014. Financial Modeling, 4th Edition, MIT Press.

### Course Description:

The course is a compulsory course for financial engineering majors, an elective course for finance majors and insurance majors. The purpose of this course are to enable students to understand the basic knowledge of fixed income securities, master pricing analysis techniques, risk assessment and management skills, understand the latest developments and trends in the fixed income securities market, and lay a solid foundation of professional theory in the future.

### 15. Intermediate Microeconomics

Course Type:
Compulsory
Instructors:
Quan Yang
<i>I</i>

### Reference Book:

Western Economics, China Higher Education Press, 2016.

### Course Description:

Microeconomics studies microeconomic subjects (such as consumer, worker, investor and manufacturer) and

discusses how they make economic decisions and why they make such decision. This course includes supply and demand theories, consumer behavior theories, manufacturers' production and cost theories, manufacturers' pricing and output decision theories, and market structure and competition strategies. It aims to help students understand basic economic knowledge and apply microeconomic analytical tools to study real economic problems.

#### 16. International Business

Targeted Level:	Course Type:
Double-Degree Economics Students	Elective
Prerequisite:	Instructors:
Principles of Economics, Principles of Management	Jihong Lin / Yan Chen

### Reference Book:

- Charles Hill, International Business, 9th Edition, China Renmin University Press, 2014.
- Alan M. Rugman. International Business, 6th Edition, Trans-Atlantic Publications, 2012.
- Lin Jihong, New International Business Textbook, China Renmin University Press, 2013.
- International Business: Competing in the Global Market.
- Michael R. Czinkota et al, Fundamentals of International Business, Peking University Press/Thomson Learning, 2009.

### Course Description:

This module is the core course of IB major. Students are required to master basic theories, principles and research methodologies of IB and be able to apply the theories in practice, such as explain the new issues and phenomenon and solve the problems. Students are required to read English journal, magazines and newspaper and cultivate comprehensive qualities and abilities, and be able to do cross-cultural communication.

#### 17. International Economics

Targeted Level:	Course Type:
Double-Degree Economics Students	Compulsory
Prerequisite:	Instructors:
Macroeconomics, Microeconomics	Min Gong, Shuijun Peng & Lina Meng

# Reference Book:

- P. Krugman and M. Obsterfield, International Economics.
- D. R. Appleyard and S. J. Field, Jr. International Economics, 3rd Edition, McGraw-Hill.

#### Course Description:

International Economics is a core course of economics. It aims to help students analyze economic phenomena from the perspective of international economics, master basic economic analytical methods, and comprehend trade theories, international financial theories and macroeconomic theories under the policy of opening up.

### 18. Introduction to Thesis Writing

Targeted Level:	Course Type:
Double-Degree Economics, Finance & Statistics Students	Compulsory
Prerequisite:	Instructors:
Relevant courses	Xiqian Cai / Yanan He / Xiaoran Huang / Haiwei Jing / Kai Li / Yunxia Liu / Linlin Liu / Chao Ma / Lei Meng / Menghan Xu / Nan Zhong / Xiaolu Zhou / Ruiping Xie

- > Fu Shihe & Judy M. Perrella. 2012. How to Write and Publish Economic Research Papers in English.
- Cochrane, John H. 2005. "Writing Tips for Ph.D. Students." Working Papers. Online at https://faculty.chicagobooth.edu/john.cochrane/research/papers/phd\_paper\_writing.pdf
- Dudenhefer, Paul. 2009. "A Guide to Writing in Economics." EcoTeach Center and Department of Economics, DukeUniversity. Online at http://lupus.econ.duke.edu/ecoteach/undergrad/manual.pdf
- Neugeboren, Robert and Mireille Jacobson. 2005. "Writing Economics." The Harvard Writing Projects. Online at https://writingproject.fas.harvard.edu/files/hwp/files/writingeconomics.pdf

#### Course Description:

This course is a sequel course of WISE Undergraduate Double Degree writing course. Its preliminary requirements include: 1) the successful completion of the related field writing course; 2) the successful identification of a research question, i.e., a thesis topic; and 3) the completion of a preliminary thesis draft in fall 2018.

The goal of this course is to teach students how to revise and polish their preliminary draft and complete their theses in a satisfactory manner and according to academic standards. In order to achieve this goal, this course is designed as follows.

First, the course introduces students to the ethics, the elements, and the structure of thesis writing. In terms of ethics, we will stress the harmfulness of plagiarism. In terms of element, we will focus on the academic standards of citation. Formatting issues of the thesis will also be discussed. In terms of the writing structure, we will discuss the writing of data section, empirical analysis, literature review, introduction, conclusion, and abstract one by one. Second, the course provides a revision structure for the students through a series of take-home assignments and deadlines, so that students can make progress on their theses through frequent production of written materials. Third, the course provides for students an opportunity to orally present their work and receive feedback from instructor and peers.

# 19. Labor Economics

Targeted Level:	Course Type:
Double-Degree Economics Students	Elective
Prerequisite:	Instructors:
Basic algebra and mathematic courses, Principles of	Sifan Zhou
Economics, Econometrics	

#### Reference Book:

- Labor and Human Resources Economics -- Economic Institution and Public Policy by Ming Lu and Wenquan Liang
- Labor Economics by George Borjas
- Mastering 'Metrics -- The Path from Cause to Effect by Joshua Angrist and Jorn-Steffen Pischke

This course systematically introduces the basic contents of labor economics. The course covers how the labor supply and labor demand work and interact with each other, human capital and signaling theory, labor mobility, compensation differential, discrimination in the labor market, incentive pay, internal labor market and pay, how unions work, wage structure and inequality, and unemployment. The course also introduces the microeconometric methods that are widely applied in modern labor economic studies. The course will discuss some classical research articles in labor economics, helping students to relate the frontier of applied works in labor economics to its classical theories.

The course objectives include: 1. Understand basic labor economic theories; 2. Learn to use labor economics to analyze the economic choices made by households and firms, and understand the economic impacts of these choices; 3. Critically analyze the roles and limitations of market and government policies in achieving greatest common good in labor markets; 4. Get familiar with how economists use data and econometric methods to analyze topics in labor economics.

### 20. Macroeconomics

Targeted Level:	Course Type:
Double-Degree Economics & Finance Students	Compulsory
Prerequisite:	Instructors:
Introduction to Macroeconomics	Xiaoning Long / Tingguo Zheng
Reference Book:	

- Macroeconomics (Ninth Edition), N. Gregory Mankiw, 2015.
- Key Textbooks for Marxist theoretical Research and Construction Engineering, Western Economics (Volume II), by Western Economics Writing Group.

### Course Description:

Macroeconomics is the basic course of economics and management. This course and microeconomics constitute the basic theory of modern western economics. It is one of the two components of western economics curriculum.

Through the teaching of macroeconomics, students can master the basic research methods, basic concepts and principles of macroeconomics, the schools and theories of macroeconomics, and the theory and practice of macroeconomic policy. This course will lay a good foundation for the study of other courses in the future, and provide the basis for students to understand the reality of macro economy.

#### 21. Mathematical Finance

Targeted Level:	Course Type:
Double-Degree Economics, Finance & Statistics Students	Elective/Compulsory
Prerequisite:	Instructors:
Introductory Finance, Probability and Statistics, Linear	Dengta Chen / Menglin Chen
Algebra, Calculus	

### Reference Book:

Introduction to the Mathematics of Finance: Arbitrage and Option Pricing, by Steven Roman, Springer-Verlag, New York; 2<sup>nd</sup> ed. (2012).

- Mathematics for Finance: An Introduction to Financial Engineering, by Marek Capinski and Tomasz Zastawniak, Springer Undergraduate Mathematics Series, 2nd ed. (2011).
- An Elementary Introduction to Mathematical Finance, by Sheldon M. Ross, Cambridge University Press; 3rd Edition (February 28, 2011).
- > Stochastic Calculus for Finance, by Steven Shreve, Springer (April 21, 2004).

On a mathematical perspective, this course presents the fundamentals of finance theory: principles of no-arbitrage, interest rates, the pricing of financial instruments (forwards, futures, options and swaps), diversification and portfolio optimization, and their risk management. Essential mathematical tools are introduced, such as change of measure and conditional expectation.

### 22. Mathematical Statistics

Targeted Level:	Course Type:
Double-Degree Statistics Students	Compulsory
Prerequisite:	Instructors:
Advanced College Mathematics or Calculus, Probability	Chunlin Wang / Guannan Liu
Theory	

#### Reference Book:

- An Introduction to Mathematical Statistics and Its Applications by Richard Larsen and Morris Marx, 5th Edition, 2012, Pearson. ISBN-13: 978-0-321-69394-5.
- Introduction to Mathematical Statistics, 7th Edition, by Robert Hogg, Allen Craig and Joseph McKean, 2012, Pearson. ISBN-13: 978-0321795434.
- Statistical Inference, 2nd Edition, by George Casella and Roger Berger, 2001, Duxbury Press. ISBN-13: 978-0534243128.

### Course Description:

This course is compulsory for students in economics and it is a fundamental course for other statistics and econometrics courses. The aim of this course is to teach students the fundamental knowledge of mathematical statistics. In this course, you will learn: sampling from the normal distributions; order statistics; methods of finding estimators including method of moment estimation and maximum likelihood estimation; properties of point estimators; unbiased estimation; sufficiency and completeness; uniformly minimum-variance unbiased estimator (UMVUE); parametric interval estimation; hypothesis testing; most powerful test; goodness-of-fit test, etc.

### 23. Microeconomics

Targeted Level:	Course Type:
Double-Degree Economics & Finance Students	Compulsory
Prerequisite:	Instructors:
Principles of Economics	Menghan Xu / Xiqian Cai / Shuheng Lin
Reference Book:	

- Robert S. Pindyck & Daniel L. Rubinfeld: Microeconomics (7th Edition), Tsinghua University Press, 2010.
- Hal R. Varian: Intermediate Microeconomics: A Modern Approach, 8th Edition, 2009.
- Walter Nicholson: Microeconomic Theory: Basic Principles and Extensions, 9th Edition, Peking University Press, 2005.
- > Daron Acemogulu, David Laibson, John List: Microeconomics

Building upon Principles of Economics, this course aims to provide students with comprehensive understandings about the economic decisions by individuals and how individual behavior affects the market. Students will learn the methods of Microeconomic analysis and the important concepts related to Microeconomics, which helps to develop the skills of understanding the real world with the tools taught in this course. The course will be taught in English. After learning this course, students should be able to understand the key insights in the field of Microeconomics. They will also learn how to use the Microeconomics tools in understanding the effects of government policies.

# 24. Multivariate Statistical Analysis

Targeted Level:	Course Type:
Double-Degree Statistics Students	Compulsory
Prerequisite:	Instructors:
Linear Algebra, introductory probability and statistics	Yunxia Liu / Huanjun Zhu

#### Reference Book:

- > Applied Multivariate Statistical Analysis, sixth Edition, by Johnson, R.A. and Wichern, D.W., published by Pearson Education or Tsinghua University Press.
- Applied Multivariate Statistical Analysis, fourth Edition, by Hardle, W.K. and Simar, L., published by Springer.
- Multivariate Statistical Analysis and Modeling for R Language, by Binhui Wang, published by Jinan University Publishing House, 2016.

# Course Description:

This course introduces students to the broad discipline of multivariate statistical theories and methods. The aim of the course is to introduce a variety of statistical methods for describing and analyzing multivariate data, especially focusing on how to interpret and implement these methods. At the end of the course, students should be able to: 1. develop the knowledge and understand the concepts on multivariate statistical methods; 2. choose appropriate statistical techniques to analyze empirical problems; 3. understanding the value of multivariate statistical analysis.

#### 25. National Economic Statistics

Targeted Level:	Course Type:
Double-Degree Economics Students	Elective
Prerequisite:	Instructors:
/	Juan Wen
Reference Book:	

- Yang Can: National Accounting (National Economic Statistics), 4th Edition, China Statistics Press, March, 2015.
- United Nations: System of National Accounts, 2008 (SNA2008), Sales No. E.08.XVII.29, document symbol ST/ESA/STAT/SER.F/2/Rev.5.

National economic statistics is an important tool for macroeconomic management and analysis and is highly praised by governments and people from all walks of life. National economic statistic is a significant part of economic statistics. As a main course of College Statistics Programs, the teaching objectives and tasks of this course are to provide students with the skills and competencies to a) fully understand the role and significance of national economic statistics in national economic management and macroeconomic analysis b) know the fundamentals of national economic statistics and analytical methods of major macroeconomic index, and c) lay a solid theoretical basis for national economic administration, macroeconomic management and operation management of business.

### 26. Political Economics

Targeted Level:	Course Type:
Double-Degree Economics, Finance & Statistics Students	Compulsory
Prerequisite:	Instructors:
/	Genrong Liu

#### Reference Book:

Introduction to Marxist Political Economy, People's Publishing House, 2011.

### Course Description:

Political Economy (Capitalism) is an important part of the Marxist theoretical system, is the basic discipline of economics, and is an important theoretical course for training successors for the socialist cause in the new era. By analyzing the process of capitalist reproduction and its contradictions, students can have a deep understanding of the capitalist mode of production and its history and development trends. The main contents involved include: the duality of labor, the two factors of commodities, and the determination of the value of commodities; The nature of money and its functions and currency circulation laws; Market economy and law of value; Capitalist economic system and its evolution; The production of surplus value, the form of capitalist wages; Capital circulation and turnover; Allocation of residual value; Capitalist economic crisis; The history and trend of capitalist development; and so on.

### 27. Urban Economics

Targeted Level:	Course Type:
Double-Degree Economics & Finance Students	Elective
Prerequisite:	Instructors:
Microeconomics	Xiaofang Dong

#### Reference Book:

- Jan K. Bruckner, Lectures on Urban Economics, MIT Press, September 9, 2011.
- Arthur O'Sullivan, *Urban Economics*, 8th ed., McGraw-Hill Irwin, October 26, 2011.
- Richard J. Arnott, A Companion to Urban Economic, Blackwell Publishing, October 15, 2007.
- > Handbook of Regional and Urban Economics, Volume 4, North Holland, August 4, 2004.

The field of urban economics addresses a wide variety of questions and topics. At the most general level, it introduces space into economic models and studies the location of economic activity. Urban economics typically cover a wide range of theoretical approaches and policy options. In this course, our primary focus will be on answering general and interesting questions such as, Why do cities exist? How do firms decide where to locate? Why do people live in cities? What determines the growth and size of a city? Which policies can modify the shape of a city? A simple monocentric model will be introduced to give a basic idea what is the difference between the spatial model and traditional economic model. Then we will analyze specific economic problems that arise because we are living in cities, such as crime and poverty, housing, segregation, congestion, pollution, education, and public policy. I highly encourage and value students who can put those economic problems specifically in Chinese background.

### 28. Tax Planning

Targeted Level:	Course Type:
Double-Degree Economics Students	Elective
Prerequisite:	Instructors:
Practical Coursebook on China's Taxation System I&II,	Wei Xiong
International Taxation, Enterprise Financial Accounting	
Poference Poets	

#### Reference Book:

Principles of Taxation for Business and Investment Planning, 2008, Sally M Jones, China Renmin University Press, 2009

### Course Description:

According to the actual conditions of China and the economic society in the 21<sup>st</sup> century, Economics students should have relatively strong market economic awareness and adaptable abilities, understand fundamental economic theories and be capable of working at different economic departments of government in the future. In recent years, as China's taxation law system is increasingly being improved, tax planning activities have developed rapidly. Thus, this course aims to help students obtain an in-depth understanding of the theories and methods of tax planning, so as to improve their actual work capacities.

# **International Graduate Program (Fall Semester)**

#### 1. Advanced Econometrics I

Targeted Level:	Course Type:
First year students (Master , PhD)	Compulsory
Prerequisite:	Instructors:
Calculus, Linear Algebra, Probability and Mathematical Statistics	Wei Song

#### Reference Book:

Introduction to Mathematical Statistics, 7th Edition by Hogg, McKean and Craig.

# Course Description:

This course is an introduction to probability and statistics and linear regression models designed for the first-year economics graduate students. It consists of two parts: the first half covers probability theory and statistical inference, and the second half emphasizes linear regressions.

### 2. Advanced Macroeconomics I

Targeted Level:	Course Type:
First year students (Master , PhD)	Compulsory
Prerequisite:	Instructors:
Macroeconomics, Microeconomics, Mathematical	Dan Li
Economics	

# Reference Book:

> N. Gregory Mankiw, Macroeconomics, 9th ed., 2015, Worth Publishers.

# Course Description:

This course explores the workings of an economy from a macroeconomic perspective. Although the course focuses primarily on the United States economy and its relation with the rest of the world, the concepts and tools apply to market economies around the world. Major topics include: the determinants of an economy's output in the long run; the role of money in the long run and short run; the determinants of the price level; the role of interest rates and exchange rates in the U.S. economy and in small, "open" economies; the causes and nature of the business cycle; the Keynesian model of the economy and how it differs from the classical theory of the economy; and the role of fiscal and monetary policy in stabilizing the economy and ensuring full employment. The last module of the course examines the recent meltdown of the economy, stemming from the collapse of housing prices and the financial system.

# 3. Advanced Microeconomics I

Targeted Level:	Course Type:
First year students (Master , PhD)	Compulsory
Prerequisite:	Instructors:
Intermediate microeconomics advanced mathematics	Xiaojia Bao
(calculus, linear algebra, probability statistics)	

Robert Pindyck and Daniel Rubinfeld, Microeconomics (7th Edition), Qinghua University Press 2007

### Course Description:

The main objective of this class is to train students with basic microeconomic theory and enable students to apply microeconomic theories to analyze economic phenomena and related policies.

# 4. Asset pricing I

Targeted Level:	Course Type:
Second year students (Master, PhD)	Elective
Prerequisite:	Instructors:
Basic microeconomic theory, calculus and matrix algebra	Peilin HSIEH

### Reference Book:

- Cochrane, 2004 Asset Pricing, Revised Edition, Princeton University Press.
- > O'Hara, 1995 Market Microstructure Theory, Blackwell Publishers, Cambridge Mass.
- Huang and Litzenberger, 1988 Foundations for Financial Economics, North-Holland (Elsevier Science Publishing, New York).
- Ingersoll, 1987 Theory of Financial Decision Making, Rowan and Littlefield(Totowa, NJ).
- > Robert Jarrow, 2002 Modeling Fixed Income Securities and Interest Rate Options (2nd Edition).
- > John Hull, 2014 Options, Futures, and Other Derivatives (9th Edition)

# Course Description:

This course, which is the first in the sequence of doctoral seminars offered in finance, is designed to introduce students to the major models of asset pricing and to Rational Expectations models. All of the material is developed from first principles, so there are no formal prerequisites for taking this seminar. It is assumed, however, that students are familiar with basic microeconomic theory and have a working knowledge of both calculus and matrix algebra. The general approach will be:

- > to examine the economic intuition behind each model
- > provide a mathematically rigorous derivation of the model
- > discuss the model's important features, and
- outline the testable implications of the model.

# 5. Chinese Economy

Targeted Level:	Course Type:
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Second year students	Compulsory
Prerequisite:	Instructors:
	Xiaojia BAO

- > Naughton, Barry. 2007. The Chinese Economy: Transitions and Growth. Cambridge, Mass.: The MIT Press.
- \*Loren Brandt and Thomas Rawski. 2008. China's Great Economic Transformation. Cambridge University Press (Optional)
- > Chow, Gregory C. 2007. China's Economic Transformation, 2nd Edition, Blackwell Publishing, Oxford et al.
- > Spence, Jonathan D. 1999. The Search for Modern China, 2nd Revised edition, W. W. Norton & Co., New York.
- > J. Fan and R. Morck. 2012. Capitalizing China, University of Chicago Press, Chicago, IL
- > Lieberthal, Kenneth, 2004. Governing China: From Revolution to Reform. New York: W.W. Norton and Company.
- > WU Jinglian, 2005, Understanding and Interpreting Chinese Economic Growth

#### Course Description:

The course provides a general introduction to the background and current structure of Chinese economy. It aims to help students understanding sources of Chinese economic growth and analyzing economic problems in China using empirical and theoretical approaches. We will first cover the basic geographic and demographic backgrounds and a brief introduction on economic growth history in China. Following it, we will mainly explore the behavior and decision—making of main players in the economy, including firms, governments and households. Throughout the way, we will integrate industrialization, decentralization and urbanization together. In the end, the course will cover specific fields including trade and financial system in China.

# 6. Climate Change Economics

Targeted Level:	Course Type:
Second year students	Compulsory
Prerequisite:	Instructors:
Advanced Macroeconomics I and Advanced Microeconomics I	Jinxiu Ding

# Reference Book:

- ▶ IPCC AR5 overall Synthesis report pages 2-12 (covers observations, causes and projections)
- IPCC WGII AR5 SPM pages 4-8 (identifies likelihood wording)
- > IPCC WGII AR5 pages 662-672 (covers energy effects)
- ➤ IPCC WGIII AR5 SPM pages 4-9 (discusses mitigation and emissions sources)
- > IPCC WGII AR4 chapter 18 pages 748-750 (discusses adaptation and mitigation)
- IPCC SREX SPM pages 4-9 (discusses extremes)

#### Course Description:

Climate change are attracting increased attention with more evidence supporting its existence. So should we take action? What could we do and what are the economic issues here? How to evaluate the effects of climate change? This course will introduce students the topics of climate change and its economic aspects. The course will also improve students' ability to assess economic questions by examining and discussing approaches used in assessments regarding effects, adaptation and mitigation. Topics will be discussed in this course include the following.

Topic 1: Introduction to Climate Change

Topic 2: Toward Action and Economic issues

Topic 3: Economic Vulnerability under Climate Change

Topic 4: Climate Change Mitigation

Topic 5: Climate Change Adaptation

Topic 6: Will Bioenergy be Profitable: Markets, Lifecycle Carbon Footprint, Commodity Prices and Leakage

Topic 7:Cost of Carbon: Discounts, Fungibility and Agricultural GHG Offset projects

Topic 8:Co-Effects of Climate Change and GHG Mitigation Policies

Topic 9:Mixing Adaptation and Mitigation Policies

#### 7. Economics of Nature Resources

Targeted Level:	Course Type:
Second year students	Compulsory
Prerequisite:	Instructors:
Master's level microeconomics	Zhi Li
Reference Book:	

> Hartwick, John M. & Nancy D. Olewiler. 1998. The Economics of Natural Resources, 2nd Edition.

Addison-Wesley Educational Publishers, Inc.

Jon M. Conrad, Resource Economics, 2nd Edition, Cambridge University Press

#### Course Description:

As the first graduate course in resource economics, this course examines a broad range of issues related to the use of natural resources with a framework that combines calculus and graphical analysis. In general, this course applies microeconomic theory to problems of allocating renewable and nonrenewable natural resources, both among competing users and across time. Basic models are applied to the problems of fisheries overexploitation, excessive forest harvesting, and the depletion of water, soil and energy resources. The course also examines the economic rationale for government intervention in the market's provision of natural resources and evaluates alternative methods for regulating the use of selected natural resources.

### 8. Empirical Applications of Industrial Organization

Targeted Level:	Course Type:
First year students	Compulsory

Prerequisite:	Instructors:
N. Gregory Mankiw, 2014. Principle of Economics.	Jialiang Zhu
Reference Book:	

- Kowoka, J. and L. White, eds. (2009), The Antitrust Revolution, 5th edition, New York: Oxford University.
- > Tirole, J (1988), The Theory of Industrial Organization, Cambridge, MIT Press.
- > W. Kip Viscusi, John Vernon, and Joseph Harrington (2005), Economics of Regulation and Antitrust, 4th

The course will focus on the empirical applications of industrial organizations. Specifically, it will primarily introduce the economics of antitrust and regulation. The course will teach students think in the perspectives of both firm and government. It will enable students to examine different market practices strategically and analytically. In particular, student should be able to come up with their own policy design after the course.

For each topic, students will study both the basic theory and the empirical evidence related to the theory. Both positive and normative issues will be analyzed. The course will cover the following broad topics: horizontal merger policy, collusion, predatory pricing, and vertical mergers and restraints, optimal regulation, and regulation in public utilities.

### 9. Financial Economics

Targeted Level:	Course Type:
First year students	Compulsory
Prerequisite:	Instructors:
This is an introductory level course which does not	Stephanie Chan
require in-depth knowledge on economics or finance.	
Students are expected to be skillful in using	
high-school math to make relevant calculations.	

### Reference Book:

> Bodie, Merton and Cleeton, Financial Economics, 2nd edition, Chinese reprint, English version (required)

### Course Description:

To ensure that the student obtains a solid basic understanding of the principles of financial economics. The most important skills are

- To understand and apply the time value of money techniques to various problems
- To be able to state the principle of asset valuation
- To be able to distinguish between risk management techniques
- To be able to relate risk and return using the CAPM framework

# 10. Chinese Financial Systems

Targeted Level:	Course Type:
Second year students	Compulsory

Prerequisite:	Instructors:
	Ming Gu

- > Saunders, Anthony and Marcia Millon Cornett, "Financial Markets & Institutions"
- McGraw Hill ---- Reference book, not required.

### Course Description:

This course gives a basic introduction to the main features of financial institutions and markets in the United States and China. The objective of this course is to prepare students for successful interaction with financial markets and institutions. This course examines the form and function of various financial markets and the manner in which financial managers use these markets to accomplish corporate objectives. Focus will be placed on the behavior of major financial institutions and their role in the intermediation process as suppliers of funds as well as the form and function of specific financial markets.

# 11. Fixed Income Analysis

Tar	geted Level:	Course Type:
Sec	cond year students	Compulsory (MAF)
Pre	requisite:	Instructors:
>	Probability theory	Qian Han
>	Stochastic process	
>	Basic understanding of the fixed income markets	
>	Derivatives	

# Reference Book:

- > Modeling Fixed-Income Securities and Interest Rate Options, second edition, Robert A. Jarrow
- Interest rate models: theory and practice, Damiano Brigo and Fabio Mercurio

### Course Description:

In This Course

You expect to learn:

Spot rate models

Vasicek (general equilibrium model)

CIR(general equilibrium model)

HW I, II (general equilibrium model)

BDT(no arbitrage model, use the entire yield curve to model the spot rate movement)

Instantaneous forward rate models(modeling the entire yield curve, not just the spot rate)

HJM(no arbitrage model)

LIBOR market models (modeling a set of forward rates)

BGM(no arbitrage model)

You also get a chance to know lots of interest rate derivatives products

Swaps/futures/options/swaptions

Callable/convertible/caps/floors/quantos/exotics

# 12. Game Theory

Targeted Level:	Course Type:
Second year students	Elective
Prerequisite:	Instructors:
	Yun Wang

#### Reference Book:

- ➤ Game Theory for Applied Economists, by Robert Gibbons, Princeton University Press Reprint edition (July 13, 1992), ISBN-10: 0691003955, ISBN-13: 978-0691003955
- An Introduction to Game Theory, by Martin J. Osborne, Publisher: Oxford University Press (August 7, 2003), ISBN-10: 0195128958, ISBN-13: 978-0195128956

### Course Description:

This course introduces students to the basic concepts of game theory, which is the theory of strategic interactions. The emphasis is on the unifying perspective that game theory offers to questions in economics, and many other disciplines including business, biology, political science as well as everyday life. The basic concepts of game theory will be presented using a wide range of substantive and intellectually stimulating applications. After completing this course students will be able to view social interactions as strategic games, to use game theoretic concepts to predict behavior in these interactions and to conceive of ways in which altering the rules of the game will affect outcomes.

### 13. Industrial Organization

Targeted Level:	Course Type:
Second year students	Compulsory
Prerequisite:	Instructors:
The prerequisite for this course is Microeconomics.	Jialiang Zhu

### Reference Book:

Industrial Organization: Contemporary Theory and Empirical Applications,

Lynne Pepall, Daniel J. Richards, and George Norman

> The Antitrust Casebook, William Breit and Kenneth Elzinga

### Course Description:

Industrial organization is a subfield of microeconomics devoted to the study of firms and markets, focusing in particular on how firms acquire market power, how firms use this power once acquired, and how competing firms interact strategically. The development of non-cooperative game theory over the past several decades has provided new, formal tools to study these issues and has led to an explosion of interest in industrial organization. Many of the lectures will be theoretical, but there will also be discussions of policy issues and empirical methods.

This course innovates the traditional industrial organization class. It consists of theory, case study and empirical method. After the course, students should be able to distinguish market strategy, improve their literature reading skills, and know some basic data management skills.

# 14. International Finance

Targeted Level:	Course Type:
Second year students	Elective
Prerequisite:	Instructors:
N. Gregory Mankiw, Macroeconomics 7th Edition	Yufei Yuan

- N. Gregory Mankiw, Macroeconomics 7th Edition
- > Paul R. Krugman, Maurice Obstfeld and Marc J. Melitz, International Economics: Theory and Policy 9th Edition
- > Jeffrey D. Sachs, Felipe B. Larrain, Macroeconomics in the Global Economy Prentice-Hall

### Course Description:

Perhaps more than ever before, an international perspective is required to address the fundamental questions of macroeconomics. What determines the level of economic activity in an economy? What determines the pace of economic growth? What are the effects of monetary and fiscal policy? An international perspective not only improves understanding of these familiar questions, but it also allows one to consider important new questions. For instance, why do some countries run trade deficits or surpluses? Should such imbalances concern policy makers? Why do some countries encounter financial crises? What is the proper response to these crises?

In this course, we will build a framework that allows us to address the many interesting questions of international macroeconomics. In this context, several important topics will be discussed, including the following.

- > What role does monetary and fiscal policy have in open economies?
- > Is there a need for new international financial institutions?
- What are the merits of European Monetary Union?
- > What are the tradeoffs between fixed and flexible exchange rates?
- What can account for financial crises?

### 15. International Trade

Targeted Level:	Course Type:
First and Second year students	Compulsory
Prerequisite:	Instructors:
Intermediate Microeconomics and Fundamental	Kai Li

### Reference Book:

- Krugman, Melitz, and Obstfeld, International Economics: Theory and Policy
- Feestra and Taylor: International Trade
- > Reading materials will be assigned in class.

#### Course Description:

This course will focus on both theoretical and quantitative aspects in the field of international trade. The aim is to help us understand the causes and consequences of trade, with particular focus on firms' behaviors. We will study Ricardian and H-O trade theory before moving on to monopolistic competition of trade. The bulk of the course will be spent discussing modern developments in international trade, focusing on models featuring heterogeneous firms in monopolistically competitive frameworks. We will brief touch on the other modern topics if time permits.

# 16. Introductory Mathematical Economics

Targeted Level:	Course Type:
First year students	Compulsory
Prerequisite:	Instructors:
Multivariable Calculus, Linear Algebra, basic principles of	Ziyan Yang
Microeconomics and Macroeconomics	

#### Reference Book:

- A.K. Dixit, Optimization in Economic Theory (2nd ed), Oxford, Oxford University Press, 1990.
- R.K. Sundaram, A First Course in Optimization Theory, Cambridge, Cambridge University
- Press, 1996.

# Course Description:

The purpose of the course is to provide students the mathematical tools for graduate study and research in economics. This course is designed to study the mathematical theory of optimization, which are most frequently used in economic models of the firm and consumer behavior. Topics include: necessary and sufficient conditions for constrained optimization, the role of convexity and concavity in optimization and comparative statics. If the time permits, I will slightly introduce the optimal control theory and dynamic programming. By the end of the course, students are expected to 1) understand the theoretical part of most current journal articles in economics, 2) develop theoretical framework in mathematical format to interpret real-life phenomena, 3) be prepared for economics study in future graduate-level courses using a wide range of mathematical techniques, 4) develop a set of problem-solving and analytical skills to solve real-life problems.

# 17. Investment

Targeted Level:	Course Type:
Second year students	Elective
Prerequisite:	Instructors:
	Mengmeng Ao

### Reference Book:

- ➢ 投资学, Z. Bodie, A. Kane, A.J. Marcus, 原书第九版, 机械工业出版社, ISBN: 7111390288
- Essentials of Investments (9th edition), Z. Bodie, A. Kane, and A.J. Marcus, 2013, Mc-Graw Hill Education. ISBN 978-007-714824-9.
- Investments (any recent version), Z. Bodie, A. Kane, A.J. Marcus, Mc-Graw Hill Education

### Course Description:

This course provides you with an introduction to the most fundamental aspects of investments, and possesses both theoretical and practical characteristics. The course aims at illustrating basic knowledge and skills about investments, and guiding students to systematically understand basic concepts and functions of financial markets, portfolio theory and financial assets allocation, investment analysis and management, pricing and using financial derivatives, investment performance evaluation etc. Through the course, students will learn about the investment principles in financial markets, and apply what they learn to analyze and explain investment phenomena in real economic world, get prepared for further study and research, and enhance practical investment abilities.

#### 18. Labor Economics

Targeted Level:	Course Type:
Second year students (Master , PhD)	Elective
Prerequisite:	Instructors:
	Xiqian Cai

#### Reference Book:

- Benjamin, Gunderson and Riddell, Labour Market Economics
- Borjas, Labor Economics
- ➤ Handbook of Labor Economics, Vol 3A, Orley C. Ashenfelter and David Card, Chapter 23, Empirical Strategies in Labor Economics, by Joshua D. Angrist and Alan B. Krueger (http://www.irs.princeton.edu/pubs/pdfs/401.pdf)
- Microeconometrics: Methods and Applications, by Cameron and Trivedi
- Mostly harmless econometrics: an empiricist's companion, Joshua D. Angrist and Jörn-Steffen, Pischke Princeton and Oxford: Princeton University Press

### Course Description:

This is a graduate course in labor economics and covers core topics in the field of labor economics and empirical methods for applied microeconomic analysis. There is no compulsory textbook for the course. Readings designated by an asterisk (\*) will be emphasized in the lectures. Readings designated by a (P) can be selected for the in-class presentation. Readings with no asterisk may be discussed in the lectures briefly, but are primarily offered as a guide to the literature.

### 19. Law and Economics

Targeted Level:	Course Type:
Second year students	Elective
Prerequisite:	Instructors:
	Cheryl Long

### Reference Book:

Richard Posner, Economic Analysis of Law (Apsen), or 蒋兆康译中文版,法律出版社。

### Required Textbook:

➤ Robert Cooter and Thomas Ulen, Law and Economics (Addison-Wesley, 6 ed.), or 史晋川译中文版,格致出版社/ 上海三联书店/上海人民出版社;

### Course Description:

This course provides an introduction to law and economics. Standard economic theory will be applied to analyze law and legal institutions and to study the origin, nature, and consequences of the "rules of the game" as they pertain to individual and group behaviors. Specifically, applications of economic theory in property law, contract law, tort law, crime and prosecution, and other related topics will be discussed.

# 20. Literature Review and Thesis Writing

Targeted Level:	Course Type:
Second year students	Elective

Prerequisite:	Instructors:
	Xiaofang Dong

- Cochrane, J., 2005, Writing tips for Ph. D. students, available at http://faculty.chicagobooth.edu/john.cochrane/research/papers/phd\_paper\_ writing.pdf
- Davis, D., 2001, Ph.D. thesis research: Where do I start? Available at http://www.columbia.edu/~drd28/Thesis Research.pdf
- Hacker, D., 2010, A writer's reference, 6th edition, Bedford/St. Martin's.
- Longknife, A., Sullivan, K.D., 2002, The art of styling sentences, Barron's, New York.
- Feak, C., Swales, J., 2009, Telling a research story: Writing a literature review, The University of Michigan Press.
- McCloskey, D., 2000, Economic writing, 2nd edition, Waveland Press, Inc., Long Grove.
- Strunk, W., White, E., 1999, The elements of style, 4th edition, Longman

#### Course Description:

The goal of this course is to teach students how to revise and polish their preliminary draft and complete their theses in a satisfactory manner and according to academic standards. In order to achieve this goal, this course is designed as follows.

First, the course introduces students to the ethics, the elements, and the structure of thesis writing. In terms of ethics, we will stress on the harmfulness of plagiarism. In terms of element, we will focus on the academic standards of citation. Formatting issues of the thesis will also be discussed. In terms of the writing structure, we will discuss the writing of data section, empirical analysis, literature review, introduction, conclusion, and abstract one by one. Second, the course provides a revision structure for the students through a series of take-home assignments and deadlines, so that students can make progress on their theses through frequent production of written materials. Third, the course provides for students an opportunity to orally present their work and receive feedback from instructor and peers.

### 21. Micro-econometrics and Application

Targeted Level:	Course Type:
Second year students	Compulsory
Prerequisite:	Instructors:
	Jiaming Mao

### Reference Book:

- Angrist, Joshua, and Jörn-Steffen Pischke. (2014) Mastering 'Metrics: The Path from Cause to Effect. Princeton University Press.
- Angrist, Joshua, and Jörn-Steffen Pischke. (2008) Mostly Harmless Econometrics: An Empiricist's Companion. Princeton University Press.
- > Cameron, Colin, and Pravin Travedi. (2005) Microeconometrics: Methods and Applications. Cambridge University Press.

### Course Description:

This course offers a unified introduction to the principles and methods of statistical learning and causal inference – two areas essential to data analysis in economics. The first part of this course introduces learning theory and a number of modern machine learning methods used for pattern recognition and predictive modeling. The second part introduces the theory of causal inference and surveys frequently used econometric techniques for causal effect learning and program evaluation. Finally, we discuss structural estimation and offer a unified perspective on the use of reduced-form

### 22. Selected Issues on China

Targeted Level:	Course Type:
First year students	Compulsory
Prerequisite:	Instructors:
	Shaolian LIAO etc

#### Reference Book:

- Keay, John. (2009) China: a History. New York: Harperm Press.
- Wright, David Curtis. (2001) The history of China, Westport, Conn.: Greenwood Press.
- Chinese International Publishing Group. (2009) Five Thousand Years of Chinese Characters. Beijing: Foreign Languages Press.
- Chow, Gregory. (2014) China's Economic and Social Problems. New Jersey: World Scientific.
- Zhu, Zhiqun. China's New Diplomacy: Rationale, Strategies and Significance. Farnham, England.
- Chen, Jian, (2013). Diplomacy Leads to World Harmony. Current Affairs Press.
- Ministry of Science and Technology of the People's Republic of China. (2013), China Science and Technology Indicators 2010. Scientific and Technical Documentation Press.

### Course Description:

This part of the lecture series provides an introduction to China with focus on history and politics. It will first give a brief introduction to ancient history of China with focus on features of social formation in different historical periods, and then touch upon development of science & technology. The section on politics of China will cover political power and administrative system, as well as the new security concept and its impacts on foreign relations.

# 23. Time Series Analysis I

Targeted Level:	Course Type:
Second year students (Master, PhD)	Elective
Prerequisite:	Instructors:
	Muyi Li

#### Reference Book:

> Time Series Analysis, James D. Hamilton, 1994.

### Course Description:

This is an introductory course to time series analysis. Methods are hierarchically introduced .starting with basic concepts and terminologies, progressing to different data analysis, and ending with different modeling and inference procedures. The course material will cover stationary/non-stationary, linear/nonlinear time series analysis. After this course, students are expected to learn the knowledge and skills needed to do both theoretical and empirical research in fields operating with time series data sets.

# 24. Urban Economics

Targeted Level:	Course Type:
Second and third year students	Elective
Prerequisite:	Instructors:
The intent of this course is to expose you to a number of	Xiaofang Dong
ideas in modern urban economics. We will emphasize the	
use of modeling techniques that build directly upon the	
material covered in intermediate microeconomics. If you	
have not yet taken microeconomics, or the equivalent,	
you should prepare to work very, very hard to keep up	
with your peers, and should see me immediately to	
discuss your readiness to take the course. You should	
also be comfortable with some basic calculus and working	
with algebraic expressions.	

- > Jan K. Bruckner, Lectures on Urban Economics, MIT Press Optional textbook:
- Arthur O'Sullivan, Urban Economics, 6th ed., McGraw-Hill Irwin
- > Richard J. Arnott, A companion to Urban Economic, Blackwell Publishing
- Optional textbook:
- ➤ Handbook of Regional and Urban Economics Vol.4-Vol.5 Reading Materials:
- > Several journal articles will be distributed during the course, to provide more detail background of the model used in class or to encourage students apply those basic microeconomic concepts to real world scenario.

### Course Description:

Urban economics introduces space into economic models and studies the location of economic activity. It addresses a wide variety of theoretical approaches and policy options.

In this course, our primary focus will be on answering general and interesting questions such as, Why do cities exist? How do firms decide where to locate? Why do people live in cities? What determines the growth and size of a city? Which policies can modify the shape of a city? A simple mono-centric model will be introduced to give a basic idea what is the difference between the spatial model and traditional economic model. Then we will analyze specific economic problems that arise because we are living in cities, such as crime and poverty, housing, segregation, congestion, pollution, education, and public policy. I highly encourage and value students who can put those economic problems specifically in Chinese background.

# **International Graduate Program (Spring Semester)**

### 1. Advanced Corporate Finance

Targeted Level:	Course Type:
MA-PhD	Compulsory
Prerequisite:	Instructors:
	Haiwei Jing

#### Reference Book:

- Financial Markets and Corporate Strategy, by Mark Grinblatt and Sheridan Titman (Irwin/McGraw-Hill, 2002)
- > The Theory of Corporate Finance, by Jean Tirole (Princeton University Press, 2006)
- > Econometric Analysis of Cross Section and Panel Data, by Wooldridge (MIT Press, 2001).

#### Course Description:

This course surveys the common methodologies used in empirical corporate finance research, with an emphasis on practical issues. It also examines many of the important topics in corporate finance, including both seminal papers and working papers on the cutting edge of the field.

### 2. Advanced Econometrics II

Targeted Level:	Course Type:
First year students (Master , PhD)	Compulsory
Prerequisite:	Instructors:
The course prerequisite is Advanced Econometrics I (probability and statistics). Familiarity with linear algebra and multivariate calculus is assumed.	Andrew Pua

### Reference Book:

Wooldridge, Jeffrey (2015). Introductory Econometrics: A Modern Approach. South-western College Publishers, 6th Edition

### Course Description:

This course is designed for International Economics Ph.D. and Master students at WISE, XMU. The basic methods of modern econometrics are covered. Attention will be given both to econometric theory and the problems that arise in empirical studies. We begin with an extended discussion of univariate and multivariate regression analysis. Later in the semester, we will get to learn more advanced topics, such as instrumental variables, limited dependent variable methods, and the application of regression models to time series and panel data.

### 3. Advanced Macroeconomics II

Targeted Level:	Course Type:
First year students (PhD)	Compulsory
Prerequisite:	Instructors:

Advanced Macroeconomics I	Mouhua Liao

David Romer, Advanced Macroeconomics 4th Edition, McGraw-Hill/Irwin, 2012 (ISBN:0073511374)

### Course Description:

In this course we will study the foundations of modern macroeconomic analysis and survey applications related to economic growth and business cycles. We will begin with a basic understanding of macroeconomic facts related to growth and economic fluctuations, and then explore different macroeconomic models and research findings to help you acquire analytical skills to solve problems in macroeconomics. Some important methods of solving dynamic models, such as differential calculus of constrained maximization and dynamic programming, will be introduced to you.

### 4. Advanced Microeconomics II

Targeted Level:	Course Type:
First year students (PhD)	Compulsory
Prerequisite:	Instructors:
Advanced Microeconomics I	Jialiang Zhu

#### Reference Book:

Varian: Microeconomic Analysis, 3rd. Ed. - MilesLight.com

### Course Description:

This course will equip students with advanced microeconomics theory and its application. After the course, students should be able to use mathematical model to demonstrate economics theory, use economic models to analyze and examine empirical applications. The course is designed for Ph.D. students; it will be highly mathematical orientated. Students are required to take advanced microeconomics I before taking this course.

The course will cover big topics in microeconomics, including uncertainty, utility, market power, oligopoly and game theory, pure exchange economy, and information economics. All the topics will be elaborated on in great details, and students are required to demonstrate all the models using advanced mathematics.

### 5. Applied Micro-econometrics

Targeted Level:	Course Type:
First year students (Master, PhD)	Elective
Prerequisite:	Instructors:
	Jiaming Mao

#### Reference Book:

- Angrist and Pischke, 2009, Mostly Harmless Econometrics: An Empirical Companion, Princeton University Press, Princeton, New Jersey, USA.
- Arellano, 2003, Panel Data Econometrics, Oxford University Press, New York, USA.

- Cameron and Trivedi, 2005, Microeconometrics, Cambridge University Press, New York, USA. (4) Hsiao, 2003, Analysis of Panel Data, Cambridge University Press, Cambridge, UK.
- Lee, 2005, Micro-econometrics for Policy, Program, and Treatment Effects, Oxford University Press, New York, USA.
- Wooldridge, 2002, Econometric Analysis of Cross Section and Panel Data, MIT press, Cambridge, USA.
- Cerulli, 2015, Econometric Evaluation of Socio-Economic Programs: Theory and Applications, Springer, German.

This course covers several popular econometric methods which have recently been widely used in empirical studies. These topics include (1) instrumental variables estimation and inference under weak instruments and near erogeneity; (2) static and dynamic panel data models; (3) policy evaluation; and (4) quartile estimation.

# 6. Asset Pricing II: Continuous - time Models and Risk Management

Targeted Level:	Course Type:
Second year students (Master, PhD)	Elective
Prerequisite:	Instructors:
	TBD

#### Reference Book:

- Risk Management and Financial Institutions, Third Edition (John Hull, 2012) website: http://www-2.rotman.utoronto.ca/~hull/riskman/
- Stochastic Calculus for Finance: Volume II: Continuous-time Models (Steven Shreve, 2004)
- > Options, Futures, and Other Derivatives, 6th Edition (John Hull, 2006)
- Quantitative Risk Management: Concepts, Techniques and Tools (Alexander McNeil, Rüdiger Frey, Paul Embrechts, 2005)
- Monte Carlo Methods in Financial Engineering (Paul Glasserman, 2003)
- Interest Rate Models Theory and Practice: with Smile, Inflation and Credit, 2nd Edition (Damiano Brigo, Fabio Mercurio, 2007)
- Credit Derivatives Pricing Models: Models, Pricing and Implementation (Philipp Schonbucher, 2003)

#### Course Description:

This course is designed to introduce modern quantitative methodologies for asset pricing in finance (and insurance) with emphasis on continuous-time models and associated risk management in practice. The main asset classes covered are option, rate and credit. The associated numerical implementations are demonstrated via Mat Lab.

### 7. Chinese Economy: Transitions and Growth

Targeted Level:	Course Type:
Second year students (Master, PhD)	Compulsory (MIT)
Prerequisite:	Instructors:

WISE MA & PHD students: First year core courses	Lei Meng
WISE International MA students: First year core courses	

#### Main textbook:

- Naughton, Barry. 2007. The Chinese Economy: Transitions and Growth. Cambridge, Mass.: The MIT Press.
- Naughton, Barry. 1995. Growing Out of the Plan. Cambridge University Press.

### Main reference materials

- Lin, Justin Yifu, Fang Cai, and Zhou Li. 2003. The China Miracle: Development Strategy and Economic Reform. Hong Kong: Chinese University Press.
- ▶ Chow, Gregory C. 2007. China's Economic Transformation. 2<sup>nd</sup> Edition. Malden, MA: Wiley-Blackwell.
- Lu, FMing. 2016. Great State Needs Bigger City. Shanghai: Shanghai People's Publishing House.

# Course Description:

The goal of this course is to investigate the fundamental causes of sustained economic prosperity and widespread wealth using the contemporary Chinese economy as the backdrop. Specifically, it aims at providing students with tools and frameworks to explain China's economic transitions and growth, to be able to discuss the contemporary Chinese economy topics in an informed way, and to probe into China's future.

### 8. Chinese Taxation

Targeted Level:	Course Type:
First year students	Compulsory
Prerequisite:	Instructors:
	Weixian Cai

# Reference Book:

> LIU Zou and DU Li, Tax system of the people's republic of China

# Course Description:

To introduce the fundamental concepts of tax system in China.

# 9. Corporate Finance

Targeted Level:	Course Type:
First year students	Compulsory (MAF MME)
Prerequisite:	Instructors:
Financial Markets and Corporate Strategy, by Mark	Haiwei Jing
Grinblatt and Sheridan Titman (Irwin/McGraw-Hill, 2002)	
Reference Book	

### 161

- > Robert C. Higgins, Analysis for Financial Management (9th ed.) Irwin/McGraw-Hill, 2009.
- Richard A. Brealey, Stewart C. Myers, and Franklin Allen, Principles of Corporate Finance (10th ed.), Irwin/McGraw-Hill, 2011.
- Stephen A. Ross, Randolph W. Westerfield, and Jeffrey F. Jaffe, Corporate Finance (9th ed.), Irwin/McGraw-Hill,
- 2009. Joel M. Stern and Donald H. Chew, Jr. eds. The Revolution in Corporate Finance, (4th ed.), Blackwell Business, 2003.

The objective of this course is to develop an understanding of the decisions financial managers face. In this course, we will approach problems from the perspective of the Chief Financial Officer. We will focus on decisions concerning raising money (equity, debt, convertible bonds, etc.), and spending money (project valuation, acquisitions).

# 10. Derivative Analysis

Targeted Level:	Course Type:
MA-PHD & Intl MA	Compulsory
Prerequisite:	Instructors:
Calculus , Probability	Yubo Liu

### Reference Book:

- Options, Futures, and Other Derivatives, John Hull
- > An In troduction to Derivatives Securities, Financial Market, and Risk Management, Jarrow and Chatterjea

### Course Description:

This course is designed to provide students with a solid understanding of pricing and trading in derivatives markets. The underlying includes futures and options. Algorithmic trading models and practices will be covered based on your understanding of the aforementioned instruments. Students will also better understand investors' trading behavior and how the market functions via micro-structure analysis.

# 11. Economic Analysis of Environmental Policy

Targeted Level:	Course Type:
International master students	Compulsory
Prerequisite:	Instructors:
N. Gregory Mankiw, 2014. Principle of Economics.	TBD
Potoronco Pook:	

#### Reference Book:

- Ross R. McKitrick. 2011 Economic Analysis of Environmental Policy. University of Toronto Press
- > Journals, articles and periodicals (e.g., The Economist)

# Course Description:

Broadly speaking, economics is the science of how scarce resources are allocated: how people and firms do this allocation and how society might want to make decisions about scarce resources. When viewed in this way, it is clear that economics might provide a useful framework within which to analyze environmental problems and approaches to solve them.

This course introduces students to fundamental concepts, analytical methods and public policy options in managing environmental and natural resources using the tools of economic analysis. What is economics from a practical, problem-solving point of view? And how can we use economics to analyze and solve environmental problems? The answers to these questions are the two central themes of this course.

#### 12. Economic Growth

Targeted Level:	Course Type:
First year Intl MA	Elective
Prerequisite:	Instructors:
Intermediate Macroeconomics	Mouhua Liao

#### Reference Book:

Robert J. Barro and Xavier Sala-i-Martin, ECONOMIC GROWTH, Second Edition, The MIT Press, October 2003.

#### Course Description:

A theoretical and empirical examination of economic growth and income differences across countries. This course focuses on both the experience of rich countries and the catch-up process of less-developed countries. Topics may include population growth, accumulation of physical and human capital, technological change, openness, the role of government and income distribution. This course use Solow model with exogenous savings rate as a main theoretical framework. We also consider models with endogenous saving rate, such as OLG model and optimization models with a finite period.

### 13. Empirical Methods in Labor Economics

Targeted Level:	Course Type:
Second year students	Compulsory
Prerequisite:	Instructors:
Jeffrey M. Wooldridge, Econometric Analysis of Cross	Xiqian Cai
Reference Book:	

- ➤ Pierre Cahuc and Andre Zylberberg, Labor Economics, MIT Press, 2004.
- > Angrist and Pischke, Mostly Harmless Econometrics, Princeton University Press.

### Course Description:

Research in labor economics is closely related to policy, and labor economists often aim to provide evidence on the causal effect of either a policy intervention (e.g. minimum wage) or an individual choice variable (e.g. education, fertility, child care) on labor market outcomes. During the last decades, labor economists have been very prominent in developing micro-econometric methods for estimating such causal effects. This has had substantial spillovers to other fields in economics.

In this course, we will focus on the empirical methods used in labor economics. The course is designed to prepare you to read and evaluate empirical work in labor economics. However, the toolkit presented in this course will be useful for research in all areas of applied micro.

The course will begin with a detailed discussion of some of the main problems affecting empirical work in economics, such as omitted variable bias, selectivity bias, endogeneity, and measurement error. We will then cover the empirical techniques designed to overcome these issues, such as difference-in-difference, regression discontinuity design, instrumental variables etc.

# 14. Energy Economics

Targeted Level:	Course Type:
First year students	Compulsory
Prerequisite:	Instructors:
N. Gregory Mankiw, Macroeconomics 7 <sup>th</sup> Edition	Chuanwang Sun
Reference Book:	

- Bhattacharyya S C. Energy economics: concepts, issues, markets and governance [M]. Springer Science & Business Media, 2011.
- Dorsman A, Simpson J L, Westerman W. Energy economics and financial markets [M]. Springer, 2013.
- ➤ Narbel P, Hansen J P, Lien J R. Energy technologies and economics [M]. Springer, 2014.
- Madureira N L. Key concepts in energy [M]. Springer, 2014.

### Course Description:

More than ever, energy dictates our lives. Once viewed as a utility, energy is now the key word in our struggle for a sustainable future. The need for sustainability has turned energy into a highly relevant product, even approximating a lifestyle item. In this course, we will discuss both the value and the valuation of energy, and gain useful insights into the fundamental economic forces determining the global energy supply and demand. Some economics issues facing the energy sector will also be figured out, like environmental pollutions, renewable energy systems, low-carbon development and energy finance. This course is accessible to students of little mathematical background. The economic concepts will be explained in graphical presentations, while the mathematics materials are often provided for further reading.

# 15. Environmental Economics

First year students	Compulsory
Prerequisite:	Instructors:
Introductory Economics	Xiaojia Bao
Reference Book:	

Kolstad, Charles D., 2010. Environmental Economics. Oxford University Press.

#### Course Description:

This course is intended for second-year, junior and senior students in the undergraduate program. The goal of this course is to train students with topics in environmental economics and analytical skills for addressing basic empirical research questions related to environmental economics. Students should be able to analyze basic environmental issues with economic approaches and tools.

# 16. Experimental Economics

Targeted Level:	Course Type:
First year students	Elective
Prerequisite:	Instructors:
Principals of Economics or equivalent courses	Sen Geng
Reference Book:	

#### Reference Book:

Charles Plott and Vernon Smith, Handbook of Experimental Economics Results, North-Holland, 2008

#### Course Description:

This course consists of two parts. Seventy percent of time will be devoted to the methodology and application of experimental methods in economics. Given the recent growth of interest in behavioral considerations, experiments are increasingly used in economics to study human behavior. With their help we now have much better understanding of individual and market behavior. Students will overview some of the most important existing experimental work and learn how to design their own experiments and prepare to run them.

Thirty percent of time will be spent on exploring how individuals and firms make financial decisions in a way that deviates from those predicted by traditional financial or economic theory. Specifically, we examine the existence of psychological biases in financial decision-making, and how the insights of behavioral finance sheds light on the behavior of asset prices, corporate finance, and various financial practices.

### 17. Fixed Income Analysis

Targeted Level:	Course Type:
First year students	Compulsory (MAF)
Prerequisite:	Instructors:

Jian Chen

### Required Textbook:

Bond Markets Analysis and Strategies, Sixth Edition, by Frank Fabozzi, Pearson, Prentice Hall, 2007.

#### Reference Book:

- Modeling Fixed Income Securities and Interest Rate Options by Robert Jarrow (Stanford Economics and Finance) 2nd Edition. 2002.
- Fixed Income Securities by Bruce Tuckman (Wiley), 2nd Edition, 2002.
- > Fixed Income Markets and Their Derivatives by Suresh Sundaresan (South Western), 2nd Edition 2001.

#### Course Description:

The purpose of the course is to familiarize the students with the world of fixed income and the characteristics of the various securities traded in fixed income markets. This is not a very technical course, and precise pricing models will not be discussed-they are covered extensively in other courses offered at WISE. We will also focus on public policy issues related to the fixed income markets.

# 18. Human Ecology

Targeted Level:	Course Type:
First year students	Compulsory
Prerequisite:	Instructors:
Principles of Economics	Nan Zhong

### Reference Book:

- > Diamond, Jared. Guns, Germs, and Steel: The Fates of Human Societies. W.W. Norton, 2005.
- McNeill, J.R. Something New Under the Sun. W.W.Norton, 2000.
- > Sachs, Jeffrey D. Common Wealth. Penguin, 2008.
- > Angus Maddison, The World Economy

### Course Description:

Human ecology is an interdisciplinary subject which studies the relationship between humans and their natural and social environments.

This course combines some most recent developments in both natural and social sciences, provides an introduction to this interdisciplinary field of human ecology, with a focus on the relationship between nature's processes and economic development, and the way they impact each other. Some important topics that will be discussed include how natural resource or ecological constraints can significantly affect economic development. For example, the patterns of climate, disease ecology, physical resources such as energy and geographical conditions can significantly shape the patterns of social and economic development. And anthropogenic activities, such as farming and depletion of resources, affect the physical environment in turn. In the process, the course will also provide introductions of ecosystem service, human development, some related economic policies that help managing the limited resources, and sustainable development. With these topics, the course aims to provide students an understanding of the interaction between the natural system and the social economic development.

# 19. Time Series Analysis

Targeted Level:	Course Type:
First year students	Compulsory (MAF)
Prerequisite:	Instructors:
Probability and Statistics	Muyi Li

#### Reference Book:

> Time Series Analysis with Applications in R

#### Reference Book:

> Analysis of Financial Time Series

### Course Description:

Time Series Analysis is an important branch in Inferential Statistics, and it also has wide applications in Economics, Social Science, and Natural Science. In this course, we will introduce the important theory and methods that are used in time series analysis, and discuss in details how to model stationary time series, nonstationary time series, seasonal time series, including model identification, parameter estimation, model diagnostic checking, prediction and control and so on. After taking this course, students are expected to learn the skills needed to do empirical research with time series data, and they are able to evaluate their analysis and know how to improve their analysis, which might help them a lot in further studying and practices.

# 20. Mathematical Economics

Targeted Level:	Course Type:
First year PhD students	Compulsory
Prerequisite:	Instructors:
Introductory Mathematical Economics	Ying Zeng

### Reference Book:

- Mathematics for Economists, First Edition, by Carl P. Simon and Lawrence Blume.
- Essential Mathematics for Economic Analysis, Fifth Edition, by Knut Sydsaeter, Peter Hammond, Arne Strom, Andrés Carvajal

### Course Description:

This course is designed for international Ph.D. students. It is a continuation of introductory mathematical economics. The purpose of this course is to expose students to mathematics techniques frequently used in advanced microeconomics, advanced macroeconomics and advanced econometrics

# 21. Microeconometrics and Application

Targeted Level:	Course Type:
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First year students	Compulsory
Prerequisite:	Instructors:
Econometrics	Jiaming Mao

- James et al., An Introduction to Statistical Learning: with Applications in R, Springer, 2013.
- Morgan and Winship, Counterfactuals and Causal Inference, Cambridge University Press, 2007.
- Angrist and Pischke, <u>Mostly Harmless Econometrics: An Empiricist's Companion</u>, Princeton University Press, 2009
- Wasserman, All of Statistics: A Concise Course in Statistical Inference, Springer, 2004.
- > Cameron and Trivedi, Microeconometrics: Methods and Applications, Cambridge University Press, 2005.
- Stock and Watson, Introduction to Econometrics, 3rd Edition, Pearson Education, 2010.

#### Course Description:

This course offers a unified introduction to the principles and methods of statistical learning and causal inference – two areas essential to data analysis in economics. The first part of this course introduces learning theory and a number of modern machine learning methods used for pattern recognition and predictive modeling. The second part introduces the theory of causal inference and surveys frequently used econometric techniques for causal effect learning and program evaluation. Finally, we discuss structural estimation and offer a unified perspective on the use of reduced-form and structural econometric methods.

# 22. Multivariate Statistics Analysis

Targeted Level:	Course Type:
First year students	Compulsory (Statistics)
Prerequisite:	Instructors:
Linear Algebra, introductory probability and statistics.	Jingyuan Liu

# Reference Book:

Applied Multivariate Statistical Analysis, sixth Edition, by Johnson, R.A. and Wichern, D.W., published by Pearson Education or Tsinghua University Press.

#### Course Description:

This is an introductory multivariate statistical analysis course. The aim of the course is to introduce a variety of statistical methods for describing and analyzing multivariate data, emphasizing the implementation and interpretations of these methods. At the end of the course, students should develop the knowledge for making proper interpretations, selecting appropriate techniques, and understanding their value.

## 23. Public Finance

Targeted Level:	Course Type:
First year students	Compulsory
Prerequisite:	Instructors:

Microeconomics; Macroeconomics	Ye Liu
Reference Book:	

> Harvey S Rosen, Public Finance (6th Edition),

#### Course Description:

This course is a Compulsory course for students who majored in Public Finance. Its purpose is to make the students master the basic theory of modern public finance, and be able to use their knowledge to think about the fiscal realities of our country and even worldwide. The topics include: The Functions of Public Finance; Public Goods; Public Choice; The Theories of Public Expenditure; purchase expenditure; transfer expenditure; taxation theory; Taxation System; Government Budgeting; Deficits and Public debts; Fiscal System.

# 24. Public Policy Analysis

Targeted Level:	Course Type:
First year students	Compulsory
Prerequisite:	Instructors:
Microeconomics; Macroeconomics; Public Economics;	TBD
Reference Book:	

#### tererence book

➤ Class notes

### Course Description:

This course aims to provide students with both a conceptual framework and practical experience in analyzing public policies. The course covers a variety of topics related both to the substance and methods of policy analysis. It is designed to help students develop the skills required to define and critically analyze policy issues and problems, choose the relevant methods and techniques for policy analysis, evaluate alternative policy solutions and assess the means and costs of implementation.

# 25. Real Estate Economics

Targeted Level:	Course Type:
Second year students	Compulsory
Prerequisite:	Instructors:
Intermediated Microeconomics, Intermediated Macroeconomics	Shihe Fu
Reference Book:	

- > DiPasquale, Denise, and William Wheaton. Urban Economics and Real Estate Markets. Upper Saddle River,
  - NJ: Prentice Hall, 1995. ISBN: 9780132252447
- > John F. McDonald, and Daniel P. McMillen. Urban Economics and Real Estate: Theory and

Policy, Wiley, 2 edition, 2010. ISBN: 978-0470591482

#### Course Description:

This course is designed to provide students with an introductory analysis of real estate markets, as well as public policies that affect these markets. We will apply the latest economic thinking and research to the task of analyzing real estate market fundamentals, forecasting supply and demand, and choosing locations. In this course, we will build a framework that allows us to address the many interesting questions of real estate economics. In this context, we will discussed several important topics as following.

What is the optimal Housing FAR?

How to predict the changes in real estate markets?

What about the Retail travel patterns and the distribution of stores?

Is there any fiscal incentives for land use regulation?

What can account for submarkets and land use segregation?

# 26. Regional Economics

Targeted Level:	Course Type:
First year students	Compulsory
Prerequisite:	Instructors:
Advanced microeconomics & Advanced econometrics	Xiaofang Dong, Shihe Fu, Xirui Zhang

#### Reference Book:

- > Regional Economics, Roberta Capello, 2006, Routledge.
- Modern Urban and Regional Economics, Philip McCann, 2013, Oxford University Press.
- Methods of Interregional and Regional Analysis, edited by Walter Isard, et al., 1998, Ashgate.
- > Handbook of Regional and Urban Economics, Vol. 1-5, Elsevier.

### Course Description:

This course covers the theoretic and quantitative methods in regional economic analysis. The theories include theory of location and land use, theory of regional growth, theory of regional development, theory of regional competition and coordination, theory of spatial equilibrium, cost and benefit analysis of infrastructure projects and their financing. The quantitative methods include regional and interregional input-output analysis, gravity and spatial interaction models, basic spatial econometrics, multiplier analysis, shift-share analysis, place-based policy evaluations, regional economic forecasting models.

Students are expected to be able to apply both theoretic and empirical methods to carry out regional, inter-regional, and urban economic analysis and related policy evaluation.

### 27. Stochastic Process

Targeted Level:	Course Type:
First year students	Compulsory (MFE)
Prerequisite:	Instructors:
Students will need to have basic knowledge of finance, calculus, and probability. The knowledge of financial engineering will be also expected.	Chunlin Wang

### Reference Book:

- Neftci, Salih, 1999, An Introduction to the Mathematics of Financial Derivatives, Academic Press.
- ➤ Shreve, Steven E., 2003, Stochastic Calculus for Finance I & II, Springer.
- > Hull, John C., Options, Futures, and Other Derivatives, 8th edition, Pearson Press.

### Course Description:

Stochastic analysis is a rapidly expanding interdisciplinary field that involves mathematics (stochastic calculus) and models for financial markets. Finance has become an increasingly quantitative discipline, and financial institutions are hiring graduates in finance, economics, mathematics, physics, and engineering. A solid mathematical and financial foundation is necessary to understand new paradigms in finance, and employers are also looking for graduates trained in both disciplines, with particular emphasis on modeling ability. This course will comprise an immersion into the mathematics and models of modern finance, with an emphasis on conceptual and mathematical understanding, as well as building and implementing models.

# 28. Topics in Labor Economics

Targeted Level:	Course Type:
First year students	Compulsory
Prerequisite:	Instructors:
Jeffrey M. Wooldridge, Econometric Analysis of Cross	Xiqian Cai, Shihe Fu and Lei Meng
Reference Book:	

- > Pierre Cahuc and Andre Zylberberg, Labor Economics, MIT Press, 2004.
- > Angrist and Pischke, Mostly Harmless Econometrics, Princeton University Press.

# Course Description:

Labor economics as a field has grown enormously in the past several decades. Although originally focused on the interactions between firms and workers, modern labor research examines diverse areas such as crime, family interactions, social incentive etc. The purpose of this course is to review several topics of interest to labor economists, outlining the relevant theoretical work and empirical evidence. Particular emphasis will be given to identifying data sources that will be useful for students in their own empirical work, as well as furthering students' understanding of the empirical methods used by labor economists.

# **Master and PhD Programs (Fall Semester)**

### 1. Advanced Econometrics I

Targeted Level:	Course Type:
First year students (Master , PhD)	Compulsory
Prerequisite:	Instructors:
Calculus, Linear Algebra.	Zhenghui FENG, Yaxing YANG, Huihui LI, Guannan LIU,
	Tuo LIU

# Reference Book:

- ▶ 概率论与统计学,洪永淼,中国统计出版社,2017
- Lecture Notes on Probability and Statistics Theory for Economists, Yongmiao Hong, 2013.
- Statistical Inference, Casella, G. and Berger, R. L. Duxbury Press, 2002.

### Course Description:

This course is the first course in a graduate econometrics sequence and provides necessary probability and statistics background for the first-year graduate students for their courses in econometrics, microeconomics, and macroeconomics. Contents are as following:

- Chapter 1. Foundation of Probability Theory
- Chapter 2. Random variables and Univariate Probability Distribution
- Chapter 3. Important Parametric Distributions
- Chapter 4. Random Vectors and Multivariate Probability Distribution
- Chapter 5. Introduction to Sampling Theory and Statistics
- Chapter 6. Convergence Concepts and Limit Theories
- Chapter 7. Parameter Estimation and Evaluation
- Chapter 8. Hypothesis Testing

### 2. Advanced Macroeconomics I

Targeted Level:	Course Type:
First year students (Master , PhD)	Compulsory
Prerequisite:	Instructors:
	Jaehong KIM , Minqiang ZHAO, Yu ZHANG, Shan ZHOU

# Reference Book:

- Advanced Macroeconomics, 3rd edition, by David Romer
- Economic Growth, 2nd edition, by Robert J. Barro and Xavier Sala-i-Martin
- ▶ 西方经济学 (下册), 吴易风、颜鹏飞, 高等教育出版, 2012

### Course Description:

This course explores the workings of an economy from a macroeconomic perspective. Although the course focuses primarily on the United States economy and its relation with the rest of the world, the concepts and tools apply to market economies around the world.

### 3. Advanced Microeconomics I

Targeted Level:	Course Type:
First year students (Master , PhD)	Compulsory
Prerequisite:	Instructors:
Advanced mathematics, Intermediate microeconomics	Luhang WANG, Xiaolu ZHOU, Menghan XU, Yang XU, Wenzhuo LU

### Reference Book:

- Advanced Microeconomic Theory(3rd Edition, China Edition), Geoffrey A.Jehle and Philip J.Reny, PEARSON EDUCATION ASIA LTD and CHINA RENMIN UNIVERSITY PRESS, 2011
- Microeconomic Theory, Andreu Mas-Colell, Michael D.Whinston and Jerry Green, Oxford University Press, 2012
- ▶ 西方经济学(上册),吴易风、颜鹏飞,高等教育出版,2012

### Course Description:

Microeconomics investigates how individual agents, such as consumers and firms, make (rational) decisions, as well as how these decisions interact and lead to equilibrium either in a single market setting or on multiple markets simultaneously. The aim of this course is to prepare graduate-level students with the microeconomic theory related to their future fields of interests. Topics covered in Advanced Microeconomics I include consumer theory, producer theory, partial equilibrium and general equilibrium. In this course, the economic concepts and behavior assumptions will be examined at a higher level of rigor with the help of mathematical tools.

# 4. Mathematical Economics

Targeted Level:	Course Type:
Second year students (Academic Master, PhD)	Elective
Prerequisite:	Instructors:
Advanced mathematics (calculus, linear algebra, fundamentals of probability theory), principles of economics, intermediate microeconomics, intermediate macroeconomics	Sen GENG, Xixi LIN

# Reference Book:

Mathematics for Economists, Carl P. Simon and Lawrence Blume, Norton&Company, Inc., 1994

# Course Description:

This course is designed to introduce to a wide range of mathematical techniques used in graduate level economics courses. Topics include the tools used to analyze equilibrium models, comparative-static models and optimization. Elementary economics courses use reasonably simple mathematical techniques to describe and analyze the models they present. They focus on models with one or two goods in a world of perfect competition, complete information, and no uncertainty. Courses beyond introductory micro- and macroeconomics drop these strong simplifying assumptions. However, the mathematical demands of these more sophisticated models scale up considerably. The goal of this course is to give students of economics a deeper understanding and working knowledge of the mathematics they need to work with these more sophisticated, more realistic, and more interesting models.

# Time Series Analysis I

Targeted Level:	Course Type:
Second year students (Academic Master, PhD)	Elective
Prerequisite:	Instructors:
Advanced Econometrics I, II	Muyi LI

### Reference Book:

- Time Series Analysis, James D. Hamilton, 1994.
- Time Series: Theory and Methods (2nd ed.), Peter J. Brockwell & Richard A. Davis, 1991.
- Time Series Analysis, James D. Hamilton, 1994.
- Analysis of Financial Time Series (3rd ed.), Ruey S. Tsay, 2010.
- Lecture notes on Nonlinear time series analysis-Econometric Theory and Application, Yongmiao Hong, 2011.
- The Elements of Financial Econometrics, Jianging Fan& Qiwei Yao, 2015.

# Course Description:

This is an introductory course to time series analysis. Methods are hierarchically introduced starting with basic concepts and terminolo- gies, progressing to different data analysis, and ending with different modelling and inference procedures. The course material will cover stationary/nonstationary, linear/nonlinear, univariate/multivariate time series analysis. After this course, students are expected to learn the knowledge and skills needed to do both theoretical and empirical research in fields operating with time series data sets.

# 6. Law and Economics

Targeted Level:	Course Type:
Second year students (Academic Master, PhD)	Elective
Prerequisite:	Instructors:
	Xiaoning LONG
Reference Book:	

- Richard Posner, Economic Analysis of Law (Apsen)
- Law and Economics (6th Edition), Robert B. Cooter, Thomas Ulen, Prentice Hall

### Course Description:

This course provides an introduction to law and economics. Standard economic theory will be applied to analyze law and legal institutions and to study the origin, nature, and consequences of the "rules of the game" as they pertain to individual and group behavior. Specifically, applications of economic theory in property law, contract law, tort law, crime and prosecution, and other related topics will be discussed.

# 7. Asset Pricing

Targeted Level:	Course Type:
Second year students (Academic Master, PhD)	Elective
Prerequisite:	Instructors:
	Peilin XIE

#### Reference Book:

- > John Cochrane, Asset Pricing, PrincetonUniversity Press, 2005.
- George Pennacchi, Theory of Asset Pricing, 2008,
- > Campbell and Viceira, Strategic Asset Allocation: Portfolio Choice for Long-term Investors, OxfordUniversity Press, 2002.
- > Campbell, Lo and MacKinlay, The Econometrics of Financial Market. PrincetonUniversity Press, 1997.
- Darrell Duffie, Dynamic Asset Pricing Theory, 1996.
- Altug S. and Labadie D., Dynamic Choice and Asset Markets,1994 Foundations for Financial Economics, Chi-fu Huang and Litzenberger, Prentice Ha,1988.
- Asset Pricing, John H.Cochrane, Princeton University Press, 2005.

# Course Description:

This course, which is the first in the sequence of doctoral seminars offered in finance, is designed to introduce students to the major models of asset pricing and to Rational Expectations models. All of the material is developed from first principles, so there are no formal prerequisites for taking this seminar. It is assumed, however, that students are familiar with basic microeconomic theory and have a working knowledge of both calculus and matrix algebra. The outline that follows provides a brief description of the material that is covered in the course. The general approach will be:

- > to examine the economic intuition behind each model
- provide a mathematically rigorous derivation of the model
- discuss the model's important features, and outline the testable implications of the model.

# 8. Advanced Topics on Finance

Targeted Level:	Course Type:
Second year students (Academic Master, PhD)	Elective
Prerequisite:	Instructors:
	Guojin CHEN

### Reference Book:

- > Asset Pricing, John H.Cochrane, Princeton University Press, 2005
- ➤ John Campbell , Andrew Lo and Craig MacKinlay, The Econometrics of Financial Markets, Princeton University Press,1997.

# Course Description:

This course will review the classical asset pricing theory in discrete time, cover the empirical puzzles, and then will discuss the recent theories that have been developed to try to solve the puzzles. The purposes of this course are to introduce some advanced topics in finance to students as well as to give students some basic training in reading and writing.

### 9. Labor Economics

Targeted Level:	Course Type:
Second year students (Academic Master, PhD)	Elective
Prerequisite:	Instructors:
Advanced Econometrics I , Advanced Econometrics II	Xigian CAI

### Reference Book:

- > George Borjas, Labor Economics, Seventh Edition, McGraw Hill.
- Pierre Cahuc and Andre Zylberberg, Labor Economics, MIT Press, 2004.
- > Angrist and Pischke, Mostly Harmless Econometrics, Princeton University Press.

### Course Description:

This is a graduate course in labor economics and covers core topics in the field of labor economics and empirical methods for applied microeconomic analysis. Research in labor economics is closely related to policy, and labor economists often aim to provide evidence on the causal effect of either a policy intervention (e.g. minimum wage) or an individual choice variable (e.g. education, child care) on labor market outcomes. During the last decades, labor economists have been very prominent in developing micro-econometric methods for estimating such causal effects. This has had substantial spillovers to other fields in economics. In this course, we will focus on the empirical methods used in labor economics. The course is designed to prepare you to read and evaluate empirical work in labor economics. However, the toolkit presented in this course will be useful for research in all areas of applied micro. The course will begin with a detailed discussion of some of the main problems affecting empirical work in economics, such as omitted variable bias, selectivity bias, endogeneity, and measurement error. We will then cover the empirical techniques designed to overcome these issues, such as difference-in-difference, regression discontinuity design, instrumental variables etc.

# 10. Advanced Topics on Macroeconomics I: Monetary Economics and International Finance

Targeted Level:	Course Type:
Second year students (Academic Master, PhD)	Elective
Prerequisite:	Instructors:
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### Reference Book:

- Martin Uribe and Stephanie Schmitt-Grohe (2017): Open Economy Macroeconomics, Princeton University Press.
- ➤ Jordi Galí (2015): Monetary Policy, Inflation, and the Business Cycle: An Introduction to the New Keynesian Framework and Its Applications, Princeton University Press.
- ▶ 西方经济学(下册),吴易风、颜鹏飞,高等教育出版,2012

### Course Description:

This course uses intertemporal optimization approach to study topics in open economy macroeconomics. Students will have the opportunity to learn a set of models and tools to analyze open economy macroeconomic questions and contact a number of active research areas in this field.

# 11. Applied Microeconometrics

Targeted Level:	Course Type:
Second year students (Master, PhD)	Elective
Prerequisite:	Instructors:
Advanced Econometrics Probability Theory	Jiaming MAO
Potoronco Pook:	

### Reference Book:

- Angrist and Pischke, 2009, Mostly Harmless Econometrics: An Empirical Companion, Princeton University Press, Princeton, New Jersey, USA.
- > Arellano, 2003, Panel Data Econometrics, Oxford University Press, New York, USA.
- Cameron and Trivedi, 2005, Microeconometrics, Cambridge University Press, New York, USA. (4) Hsiao, 2003, Analysis of Panel Data, Cambridge University Press, Cambridge, UK.
- > Lee, 2005, Micro-econometrics for Policy, Program, and Treatment Effects, Oxford University Press, New York, USA.
- > Wooldridge, 2002, Econometric Analysis of Cross Section and Panel Data, MIT press, Cambridge, USA.

# Course Description:

This course covers several popular econometric methods which have recently been widely used in empirical studies. These topics include (1) instrumental variables estimation and inference under weak instruments and near exogeneity; (2) static and dynamic panel data models; (3) policy evaluation; and (4) quantile estimation.

### 12. Microeconometrics and Panel data

Targeted Level:	Course Type:
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Second year students (Academic Master, PhD)	Elective
Prerequisite:	Instructors:
	Cheng Hsiao

### Required Textbook::

C. Hsiao (2014), Analysis of Panel Data, 3rd edition. Cambridge, University Press

#### Reference Book:

A.C Cameron and P.K. Trivedi (2005), Microeconometrics, Cambridge University Press.

# Course Description:

The first lecture notes are mainly about the estimation and the estimation test of the discrete choice model. The first major part covers the parametric estimation, mainly the MLE approach, for different choice models while the last small part explains the semi-parametric approach. The second lecture notes are mainly about the estimation of sample selection model for truncated data and censored data respectively. The first major part is about the various parametric approaches while the last small part introduces the non-parametric approach. The third lecture notes are mainly about the nonparametric statistics, which has not yet started this semester. The first part covering the density estimation, explains the expected value, variance, bias, MSE of the density function under uniform of multidimensional kernel form while the last part introduce the nonparametric regression.

# 13. Applied Nonparametric Econometrics

Targeted Level:	Course Type:
Second year students (Academic Master, PhD)	Elective
Prerequisite:	Instructors:
	Zongwu CAI

### Reference Book:

- Conover, W.J. (1971). Practical Nonparametric Statistics, 2nd Edition. John Wiley & Sons, New York.
- > Fan, J. and I. Gijbels (1996). Local Polynomial Modeling and Its Applications. Chapman and Hall, London.
- Fan, J. and Q. Yao (2003). Nonlinear Time Series: Nonparametric and Parametric Methods. Springer-Verlag, New York.
- ▶ Li, Q. and J. Racine (2007). Nonparametric Econometrics: Theory and Practice. Princeton University Press, Princeton.
- Serfling, R.J. (1980). Approximation Theorems in Mathematical Statistics. John Wiley & Sons, New York.

### Course Description:

This is an advanced level of econometrics course designed with ideas, methodologies, theory and applications. Here, our focuses are on both the rigorous THEORY and SKILLS of analyzing real data using nonparametric methods, in particular on implementation using the statistical software R. The socalled nonparametric statistics is referred to use statistical techniques that do not require a researcher to specify a functional form for an object being estimated. Rather than assuming that the functional form of an object is known up to a few unknown parameters, we shall substitute less restrictive assumptions such as existence and smoothness for the assumption that the parametric form of, say, a density function is known and equal to, say, the univariate normal distribution. Of course, if there is some prior knowledge about the functional form of the object of interest up to a few unknown parameters (say, mean and variance), then it would be better to use parametric techniques. However, in practice these forms are rarely if ever known, and the unforgiving

consequences of parametric misspecification are well known and are not repeated here.

# 14. Multivariate Statistical Analysis

Targeted Level:	Course Type:
Second year students (Academic Master, PhD)	Elective
Prerequisite:	Instructors:

### Reference Book:

Applied Multivariate Statistical Analysis: Pearson New International Edition (English Edition), Richard A. Johnson Dean W. Wichern, 2013

### Course Description:

This is a professional course designed for graduate students who are major in Statistics. The objective of the course is to introduce a variety of statistical methods used to analyze multivariate data, with emphasis on the theory and development of these methods. Topics covered include graphical techniques for displaying multivariate data, the geometry of sample data, the multivariate normal distribution, principal components analysis, factor analysis, canonical correlation analysis, classification/discrimination, as well as cluster analysis.

# 15. Study of the Capital (taught in Chinese)

Targeted Level:	Course Type:
Second year students (Academic Master, PhD)	Compulsory
Prerequisite:	Instructors:
	Changfa DING

# Reference Book:

- ▶ 资本论1-3卷,马克思;
- ▶ 剩余价值学说史,马克思;
- ▶ 中国经济原论,王亚南,商务印书馆,2014年
- ▶ 资本论导读,林岗、洪银兴,高等教育出版社,2012年
- ▶ 马克思主义经济学说史,顾海良、程恩富、柳欣,高等教育出版社、人民出版社,2012年

### Course Description:

Through in-depth studies on the "Capital" ,this course tries to help the students further understand the methodology and some of the problems of Marxist economics, and develop their ability to analyze economic problems ,and the ability of scientific research. A comparison of Marxist Economics and Western Economics Research would be implemented so that the students may better understand Marxist economics and western economics.

# 16. Financial Statement Analysis

Targeted Level:	Course Type:
First year students ( Professinoal Master of Finance )	Compulsory

Prerequisite:	Instructors:
	Xiaoran HUANG

#### Reference Book:

- > Financial Statement Analysis and Security Valuation, 5th edition, by Stephen Penman
- Financial Reporting and Analysis, by Revsine, Collins, Johnson, Mittelstaedt and Soffer (6th Edition, McGraw Hill, 2015).

# Course Description:

This course is designed to help you develop skill of financial information analysis - particularly firms' financial reports - for making decisions, strategy and investment. The course will be taught from the perspective of a security analyst; with the course material closely will be relevant from the aspect of corporate financial analyst for evaluating acquisitions and other investments, and for calculating the value generated by strategy scenarios. By the end of the course, the student should feel competent in writing a thorough, convincing equity research report.

### 17. Fixed Income Securities

Targeted Level:	Course Type:
Second year students ( Professional Master of Finance )	Elective
Prerequisite:	Instructors:
	Qian HAN

### Course Description:

This course introduces the primary knowledge of fixed income securities, including the basic knowledge of fixed income securities and the market operation of fixed-income markets, the pricing of bonds, the yield analysis, the static models of the interest rate term structure, interest rate risk management, the bonds portfolio management, securitization, and fixed-income derivatives. Fixed-income derivatives includes interest rate forwards, interest rate futures, interest rate swaps, interest rate options and credit derivatives.

# 18. Quantitative Portfolio Management

Targeted Level:	Course Type:
Second year students ( Professional Master of Finance )	Elective
Prerequisite:	Instructors:
	Haiqiang CHEN

### Reference Book:

Quantitative Equity Portfolio Management: An Active Approach to Portfolio Construction and Management, by Ludwig B. Chincarini and Daehwan Kim, McGraw-Hill Education

### Course Description:

The purpose of this course is to enable students to master the basic concepts and methods of quantitative investment, and to develop students' ability in quantitative analysis and decision-making. Learn how to build and deduce a quantitative

portfolio model and how to use the model to make financial investment decisions; Students will learn to use statistical analysis software and programming language to analyze financial data, construct and evaluate the quantitative portfolio, so as to improve the practical ability of quantitative analysis.

### 19. Financial Market and Financial Products

Targeted Level:	Course Type:
Second year students ( Professional Master of Finance )	Elective
Prerequisite:	Instructors:
	Ye GUO

### Reference Book:

- ▶ 1、弗雷德里克 S·米什金 (Frederic S. Mishkin), 斯坦利 G.埃金斯 (Stanley G.Eakins), 《金融市场与金融机构》(第七版), 机械工业出版社。
- ▶ 2、张亦春 郑振龙 林海,《金融市场学》(第四版),高等教育出版社。
- 3、林华 主编,《金融新格局:资产证券化的突破与创新》,中信出版社 2014 年版。
- ▶ 4、保罗•西罗尼 (Paolo Sironi),《金融科技创新》,中信出版社 2017 年版。

# Course Description:

The main contents of this course includes the macroeconomic and financial situation, the introduction of financial market, the change and development trend of Chinese financial market, the marketization of interest rate and the internationalization of RMB, and the financial innovation of China (financial system innovation). Financial product innovation) and five parts.

# 20. Mergers and Acquisitions

Targeted Level:	Course Type:
Second year students ( Professional Master of Finance )	Elective
Prerequisite:	Instructors:
	Baolin XU

## Course Description:

This course deals primarily with different aspects of mergers and acquisitions(M&A), including review of previous massive international M&A waves, analysis on motivations and types of M&A, methods of due diligence and valuation on the target company and basic models of takeovers (such as, negotiated acquisition, collective bidding and tender offer). Based on all the knowledge mentioned above, we will then focus on leveraged buyout(LBO) and management buyout(MBO), which are widely used on international M&A market.

# 21. Financial Modeling with Excel VBA

Targeted Level:	Course Type:
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Second year students ( Professional Master of Finance )	Elective
Prerequisite:	Instructors:
	Baolin XU

### Course Description:

With the development of financial market, the release of real economic risks. Students are increasingly required to have the skills of quantitative financial modeling. The most commonly used knowledge in the market is to use EXCEL-VBA programming to manage risk and asset pricing. But. At present, there are very few specialized financial modeling courses in the financial disciplines of colleges and universities in China. Therefore, the course of financial modeling can enhance students' skills as soon as possible. It is of great significance to improve the pertinence and effectiveness of student training. This course is intended to combine theoretical knowledge with the help of the computer classroom and equipment of the college. Cultivate students' practical ability and programming ability in financial modeling, and improve students' competitiveness in the job market.

### 22. Quantitative Investment

Targeted Level:	Course Type:
Second year students ( Professional Master of Applied	Elective
Statistics )	Elective
Prerequisite:	Instructors:
	Hua ZHAO

### Reference Book:

Asset Management: A Systematic Approach to Factor Investing, Andrew Ang, Oxford University Press., 2014

### Course Description:

The objectives of the course are designed for students with career aspirations in asset management, equity research, financial consulting, private equity, or investment banking. The course is useful for all investment professionals who want to knowledge quantitative investment processes, portfolio analytics, and efficient portfolio construction techniques. Quantitative Investments delivers the theory and tools necessary for active quantitative investment management. This course is also very data-intensive. Students are going to learn how to write compute programs to retrieve data, to construct portfolios, and to manage portfolio risks. The course encourages students to develop quantitative strategies and present them in class.

# Master and PhD Programs (Spring Semester)

### 1. Advanced Econometrics II

Targeted Level:	Course Type:
First year students (Master , PhD)	Compulsory
Prerequisite:	Instructors:

Advanced Econometrics I	Xiaoyi HAN, Xingbai XU, Li, CHEN, Xuexin WANG,
	Jin-young Choi

### Reference Book:

- ▶ 高级计量经济学,洪永淼,高等教育出版社,2011
- ▶ 计量经济学导论,杰弗里伍德里奇,清华大学出版社 Cengage Learning, 2017
- Econometric Analysis, by William H. Greene,7th Edition
- Introductory Econometrics: A Modern Approach, by Wooldridge, 4e
- > Econometric Theory and Methods, by Davidson and MacKinnon

### Course Description:

This course is for graduates as an advanced level of econometrics. It develops a coherent framework of econometric theory and methods for economic models, covering classical regression analysis, asymptotic theory, instrumental variables, GMM, (Q)MLE, etc. We exclude GMM and MLE in a one-semester study. This course emphasizes theories' proofs, intuitions, and applications to practical economic problems and phenomenon. Grasping these analytical tools, students would be able to read and understand more advanced econometric books. Much homework will consolidate what students learn.

## 2. Advanced Macroeconomics II

Targeted Level:	Course Type:
First year students (Master , PhD)	Compulsory
Prerequisite:	Instructors:
Advanced Macroeconomics I	Diyue GUO, Keqing LIU, Jianpo XUE

# Reference Book:

- ➤ Structural Macroeconometrics (结构化的宏观经济计量学), David N. DeJong, Chetan Dave, Princeton University Press, 2007,
- Monetary Policy, Inflation, and the Business Cycle, Jordi Gali, Princeton University Press, 2008
- Advanced Macroeconomics, David Romer, McGraw-Hill, 2012

### Course Description:

This is the second of the required core courses in macroeconomic theory for graduate students. Dynamic stochastic general equilibrium (DSGE) models have become the standard workhorse models for the analysis of economic fluctuations. The primary focus of the course will be on the analysis, solution, estimation, and extension of DSGE models. In addition, students will be introduced to basic tools in the New Keynesian modelling approach, which combines the DSGE structure characteristic of Real Business Cycle (RBC) models with assumptions that depart from those found in classical macroeconomic models. Modern macroeconomics is a quantitative science. As such, students will be expected to perform quantitative exercises using a computer program, most preferably MATLAB. You will also be asked to download Dynare, which is a set of codes used to solve, simulate, and estimate DSGE models.

### 3. Advanced Microeconomics II

Targeted Level:	Course Type:
First year students (Master , PhD)	Compulsory

Prerequisite:	Instructors:
Advanced Microeconomics I	Yun WANG, Inkee Jang, Shaojie XUE, Zhi LI

### Reference Book:

- > Microeconomic Theory, Andreu Mas-Colell, Michael D. Whinston, Jerry R. Green, Oxford University Press, 1995
- Microeconomic Analysis, Hal R. Varian, W.W. Norton & Company, 1992

# Course Description:

This course will equip students with advanced microeconomics theory and its application. After the course, students should be able to use mathematical model to demonstrate economics theory, use economic models to analyze and examine empirical applications. The course will cover Part A Social Choice: (1) Social Choice Theory; (2) Collective Decision and Welfare; Part B Game Theory (1) Game Theory Basic Concepts; (2) Information Economics (Adverse Selection; Moral Hazard); Part C Mechanism Design: Auction and Revenue Maximizing Mechanism

# 4. Advanced Financial Economics

Targeted Level:	Course Type:
First year students (Master , PhD)	Compulsory
Prerequisite:	Instructors:
	Shuoxun ZHANG, Juan LIN, Yang JI, Chao MA

### Reference Book:

> Intermediate Financial Theory, Danthine and Donalson, Academic Press, 2015

### Course Description:

The course provides an introduction to the field of asset pricing and portfolio choice. Topics to be covered include: consumer decision-making under uncertainty, Capital Asset Pricing Model (CAPM), the Consumption Capital Asset Pricing Model (CCAPM), the Arbitrage Pricing Theory (APT), the Arrow-Debreu Pricing theories and the Martingale Pricing methods, etc. This course will also discuss the application of econometric methods to the estimation and testing of selected models of financial economics.

# 5. Advanced Corporate Finance

Targeted Level:	Course Type:
Second year students (Academic Master, PhD)	Electice
Prerequisite:	Instructors:
	Haiwei Jing

# Reference Book:

- Financial Markets and Corporate Strategy, by Mark Grinblatt and Sheridan Titman (Irwin/McGraw-Hill, 2002)
- > The Theory of Corporate Finance, by Jean Tirole (Princeton University Press, 2006)

> Econometric Analysis of Cross Section and Panel Data, by Wooldridge (MIT Press, 2001).

### Course Description:

This course surveys the common methodologies used in empirical corporate finance research, with an emphasis on practical issues. It also examines many of the important topics in corporate finance, including both seminal papers and working papers on the cutting edge of the field.

# 6. The Chinese Economy: Transitions and Growth

Targeted Level:	Course Type:
Second year students (Academic Master, PhD)	Elective
Prerequisite:	Instructors:
WISE MA & PHD students: First year core courses WISE International MA students: First year core courses	Lei MENG

### Reference Book:

- > Chow, Gregory C. 2015. China's Economic Transformation. 3nd Edition. Malden, MA: Wiley-Blackwell.
- > Naughton, Barry. 2007. The Chinese Economy: Transitions and Growth. Cambridge, MA: The MIT Press.
- ➤ Lin, Justin Yifu, Fang Cai, and Zhou Li. 2003. The China Miracle: Development Strategy and Economic Reform. Hong Kong: Chinese University Press.
- Naughton, Barry. 1995. Growing Out of the Plan. Cambridge University Press.

# Course Description:

This course introduces students to the transitions and growth of the Chinese economy. It first provides a historical-institutional background for understanding the current Chinese economy. This includes discussion on economic lessons from history, geographical endowments, traditional economy, planned economy and the strategy and process of market transition. It then covers specific topics such as economic growth and topics in economic development, putting special emphasis on population, human capital, migration, and trade. It also branches into studies of economic institutions by focusing on the role of regional government in China's economic growth. It concludes by drawing lessons from studying the Chinese economy.

# 7. Advanced Derivatives Analysis

Targeted Level:	Course Type:
Second year students (Academic Master, PhD)	Elective
Prerequisite:	Instructors:
Calculus , Probability	Jingrui XU

# Reference Book:

- Options, Futures, and Other Derivatives, John Hull
- > An In troduction to Derivatives Securities, Financial Market, and Risk Management, Jarrow and Chatterjea

# Course Description:

This course is designed to provide students with a solid understanding of pricing and trading in derivatives markets. The underlying includes futures and options. Algorithmic trading models and practices will be covered based on your understanding of the aforementioned instruments. Students will also better understand investors' trading behavior and how the market functions via micro-structure analysis.

### 8. Urban Economics

Targeted Level:	Course Type:
Second year students (Academic Master, PhD)	Elective
Prerequisite:	Instructors:
Advanced microeconomics; Dynamic optimization; Applied econometrics	Shihe FU

### Reference Book:

- > Arnott, R., ed., 1996, Regional and Urban Economics, Volumes 1-2, Harwood Academic Publishers.
- > Arnott, R., D. McMillen, eds, 2006, A Companion to Urban Economics, Blackwell Publishing.
- DiPasquale, D., Wheaton, W., 1996, Urban Economics and Real Estate Markets, Prentice Hall.
- Fujita, M., 1989, Urban Economic Theory: Land Use and City Size, Cambridge University Press.
- Fujita, M., Krugman, P., Venables, A., 2001, The Spatial Economy, The MIT Press.
- > Fujita, M., Thisse, J.F., 2002, Economics of Agglomeration, Cambridge University Press.
- ➤ Henderson, J.V., 1985, Economic Theory and The Cities, Academic Press.
- Kanemoto, Y., 1980, Theories of Urban Externalities, North-Holland Publishing Company.
- > Papageorgiou, Y., Pines, D., 1999, An Essay on Urban Economic Theory, Springer.
- > Handbook of Regional and Urban Economics, Volume 1-4.

### Course Description:

This course covers the main theory and empirical evidence in urban economics at the graduate level, focusing on the development of this field during the past three decades. The prerequisites are Advanced Microeconomics, Dynamic optimization, and Applied econometrics. Topics covered include internal structure of cities, optimal city size and city size distribution, theory and empirical evidence on agglomeration economies, urban growth, urban labor markets, housing economics and policy, transportation economics, local public finance, new economic geography, and recent studies on Chinese cities.

# 9. Thesis Writing & Master Opening Report

Targeted Level:	Course Type:
Second year students (Academic Master, PhD)	Elective
Prerequisite:	Instructors:
	Wenchao XU
Reference Book:	

- Joyner, Randy L.; Rouse, William A. (Arthur), Jr.; Glatthorn, Allan A. Writing the Winning Thesis or Dissertation: A Step-by-Step Guide. 3rd ed. Sage Publications, 2012. (Course textbook, recommended)
- > Meloy, Judith M. Writing the Qualitative Dissertation. 2nd ed. Lawrence Erlbaum Associates, Publishers, 2002
- > Israel, Mark; Hay, Iain. Research Ethics for Social Scientists. Sage Publications, 2006

### Course Description:

The course is designed to get students familiarize with the process of thesis writing, committee organization, thesis and dissertation defense, and other related issues; to ensure timely and successful completion of the thesis or dissertation; to plan ahead at the early stage for their career, particularly for those with academic career advancement plans; and to provide knowledge and suggestions for organizing, writing, and publishing.

# 10. Professional English Writing

Targeted Level:	Course Type:
Second year students (Academic Master, PhD)	Elective
Prerequisite:	Instructors:
	Joseph CICHOSZ

### Course Description:

This course seeks to help the student develop professional writing skills and strategies with a solid command of the English language by helping to effectively develop both academic writing skills and improve upon oral communication. Contrary to some assumptions, writing does not come naturally. Therefore, this course seeks to provide some understandable and practical strategies to help increase one's writing productivity. The student will develop the ability to write effectively in a range of contexts and for a variety of different audiences and purposes by using appropriate styles and approaches. In the oral communication segment, the student shall develop the ability to explain and present his/her ideas in clear English to a range of audiences. Students should be capable of developing the ability to tailor a delivery to any given audience, by using the appropriate styles and approaches and developing an understanding of the importance of non-verbal cues in oral communication.

### 11. Environmental Economics

Targeted Level:	Course Type:
Second year students (Academic Master, PhD)	Elective
Prerequisite:	Instructors:
Intermediate Microeconomics	Minqiang ZHAO
Reference Book:	

> Charles D. Kolstad, Intermediate Environmental Economics 2nd Edition, Oxford University Press, 2011.

### Course Description:

This course aims to help students understand the connection between economics and the environment, and how economic analytical tools can be used to make private and public economic decisions that involve environmental

resources. Through this course, students should be able to grasp the basic theoretical knowledge, analytical and evaluation methods to lay down a solid foundation for engaging in further environmental economic studies or for engaging in environment-related governmental work in the future.

# 12. Experimental Economics

Targeted Level:	Course Type:
Second year students (Academic Master, PhD)	Elective
Prerequisite:	Instructors:
Principals of Economics or equivalent courses	Sen GENG

### Course Description:

This course consists of two parts. Seventy percent of time will be devoted to the methodology and application of experimental methods in economics. Given the recent growth of interest in behavioral considerations, experiments are increasingly used in economics to study human behavior. With their help we now have much better understanding of individual and market behavior. Students will overview some of the most important existing experimental work and learn how to design their own experiments and prepare to run them. Thirty percent of time will be spent on exploring how individuals and firms make financial decisions in a way that deviates from those predicted by traditional financial or economic theory. Specifically, we examine the existence of psychological biases in financial decision-making, and how the insights of behavioral finance sheds light on the behavior of asset prices, corporate finance, and various financial practices.

# 13. Bayesian Statistics

Targeted Level:	Course Type:
Second year students (Academic Master, PhD)	Elective
Prerequisite:	Instructors:
Principals of Economics or equivalent courses	Weixuan ZHU
Course Descriptions	

### Course Description:

Bayesian statistics is very distinctive and important part of modern statistics. The point is to take the parameter as a random variable, using historical information to determine the prior distribution, then using samples to obtain the posterior distribution, and then using the posterior distribution to make various statistical inferences. This course introduces basic theory and methodology of Bayesian statistics, including the Gibbs sampling and MCMC algorithm. The objective is to make students understand and master ideas and methods of Bayesian statistics in order to lay a good foundation for applying Bayesian statistics in various fields.

# 14. Financial Modeling

Targeted Level:	Course Type:
Second year students ( Professional Master of Finance )	Elective
Prerequisite:	Instructors:
	Qian HAN

### Reference Book:

Modeling in Finance using Excel.and Vba, Sheridan Titman, John Wiley & Sons, 2001

# Course Description:

This course is designed to equip students with practical skills of financial modeling with Excel VBA programming. Specific topics include: (1) asset pricing such as bond, stock and credit product valuations; (2) financial risk management such as hedging, diversifying and insuring with derivatives; (3) performance measurement for mutual funds and hedge funds. It is our hope that through taking this course, students will not only understand the theory and models behind asset valuation and risk management, but also be well prepared to provide effective solutions to real world financial problems.

# 15. Financial Econometrics

Targeted Level:	Course Type:
Second year students ( Professional Master of Finance )	Elective
Prerequisite:	Instructors:
	Li CHEN

### Reference Book:

- ▶ 指定教材:金融时间序列分析, Ruey S. Tsay, 人民邮电出版社, 2012年09月
- ▶ 指定教材:金融计量学:时间序列分析视角(第二版)(非全日制专硕使用),张成思,中国人民大学出版社,2016年 03月

# Course Description:

The course contents mainly include Regression Analysis; Autoregressive Moving Average Model (ARMA); Vector Autoregressive Model (VAR); Cointegrated Process; Principal Components Analysis (PCA) and Factor Analysis; Stable Process; ARMA with fat-tailed errors and Autoregressive Conditional Heteroscedasticity Model (ARCH) and GARCH Model

# 16. Financial Derivatives: Theory

Targeted Level:	Course Type:
Second year students ( Professional Master of Finance )	Elective
Prerequisite:	Instructors:
	Yubo LIU
Reference Book:	<u> </u>

Options, Futures, and Other Derivatives, John C. Hull, Pearson, 2017

### Course Description:

Financial derivatives are fundamental to the understanding of modern financial markets. This course will be structured as four parts, with each part focusing respectively on the basics of financial derivatives, the pricing of forward and futures, swap contracts, the pricing of options, the application of options, and risk management. In addition to the aforementioned subject matters, case studies regarding the China's financial derivative markets are conducted.

### 17. Financial Derivatives: Practice

Targeted Level:	Course Type:
Second year students ( Professional Master of Finance )	Elective
Prerequisite:	Instructors:
	Peilin XIE
Deference Deals	

### Reference Book:

> Trading Commodities and Financial Futures, George Kleinman, Pearson, 2013

### Course Description:

The course is structured as four parts to introduce the application of financial derivatives. The first part introduces basic knowledge of financial derivatives. The second part deals with basic operations of forwards, futures and options, such as hedging, arbitrage trading, volatility trading, and market maker trading. The third part talks about trading strategies of financial derivatives. The last part is a trade simulation, including futures trading in CFFE, options trading in SHSE, T-quote, and use of client software. A demo trading contest would be held, if possible. The teaching method combines lecture, case study and demo trading. Students are expected to master the knowledge and practice of financial derivatives by learning textbook knowledge and participating in demo trading (access to Shanghai 50ETF options), experiencing the real derivative markets, trading strategies and risk exposure.

### 18. Theory and Method of Investment Economics

Targeted Level:	Course Type:
Second year students ( Professional Master of Applied Statistics)	Elective
Prerequisite:	Instructors:
	Lizhi TANG

### Reference Book:

- ▶ Zvi Bodie, Alex Kane, Alan J.Marcus《投资学》(英文版), 机械工业出版社, 2009
- ▶ (法)索尔尼克著,王闻等译,《国际投资学》,中国人民大学出版社,2004年12月

### Course Description:

Based on the modern investment theories and modern economics analysis method, this course introduces the latest modern investment theory and method comprehensively and systematically. Emphasizing the organic unity of the theory and practice, macroscopic and microcosmic, theoretical research and empirical analysis, in 6 aspects this course elaborates project investment, property investment, financial investment, international investment, venture investment, government investment in the latest research results and related theoretical progress from 6 aspects, in order to make students grasp the essence of modern investment activities regulars of the internal and external performance.

# 19. Data Mining

Targeted Level:	Course Type:
Second year students ( Professional Master of Applied Statistics)	Elective
Prerequisite:	Instructors:
	Kuangnan FANG

### Reference Book:

- An Introduction to Statistical learning, Gareth James Daniela Witten Trevor Hastie, Springer, 2013
- ➤ Ben-Chang Shia, Yu-Ting Cheng, Chih-Hsiung Su, Liang-Fen Kuo, "Excel Application in Data Mining", Chung-hwa DATA MINING Society, November 2007.
- ➤ Ben-Chang Shia, Yu-Ting Cheng, Chih-Hsiung Su, Liang-Fen Kuo, "Microsoft SQL Server Application in Data Mining & Business Intelligence", Chung-hwa DATA MINING Society, November 2007.
- Ben-Chang Shia, Yu-Ting Cheng, Jia-Jyu Deng, "DATA MINING SUMMARY "Chunghwa DATA MINING Society.
- > Yu-Ting Cheng, Dan-Huei Yi, Ben-Chang Shia, "Statistical data analysis", Chunghwa DATA MINING Society, April 2006.

# Course Description:

- 1. Understand DM concept
- 2.Using DM Tools
- 3. Understand DM methodology
- 4. Understand DM application

# 20. Applied Multivariate Statistical Analysis

Targeted Level:	Course Type:
Second year students ( Professional Master of Applied Statistics)	Elective
Prerequisite:	Instructors:
	Jingyuan LIU

# Reference Book:

> Applied multivariate sttistical analysis, Richard A.Johnson and Dean W.Wichern, Pearson Education, 2008

### Course Description:

This course is to implement the "less is more" principle, strive to statistics theory as the main line, using the SPSS software as the tool, explain profound theories in simple language to introduce theory and application of multivariate statistical methods. The main contents include: the first chapter is a survey of multivariate analysis; the second chapter is multivariate normal population parameter estimation; the third chapter content is the test of multivariate normal distribution mean vector and covariance matrix; the fourth chapter is the discriminant analysis; the fifth chapter is clustering analysis; the sixth chapter is the principal component analysis; the seventh chapter content is the factor analysis; the eighth chapter is The corresponding analysis; the ninth chapter is the canonical correlation analysis, the tenth chapter is multidimensional scaling; the eleventh chapter is multivariate visualization analysis. This book is particularly prominent, the SPSS software learning and case analysis of the organic combination, shows the application of multivariate statistical analysis method.

# 21. The Research of National Accounting Theories and Method

Targeted Level:	Course Type:
Second year students ( Professional Master of Applied Statistics)	Elective
Prerequisite:	Instructors:
Economic statistics (national economic statistics)	Chan YANG
Deforence Book	

### Reference Book:

▶ 国民经济核算教程(第四版),杨灿,中国统计出版社,2016年

# Course Description:

This course covers the basic theories and methods of national accounts and some relevant issues of macroeconomic analysis. The main contents include: First, an overview at the basic issues of national accounts (framework, principles, classification); Second, comprehensive introduction of five parts of the accounts theories and methods; Third, the structure of national accounts; Fourth, the frontier issues and developments of national accounts; Fifth, the compilation of CPI, the theories and methods of economic statistics, and so on. Combining with relevant research projects, this course aims at expanding and deepening students' existing knowledge of economic statistics and national accounts, helping the students master the relevant theories and skills more thoroughly, and cultivating their interest and ability of analyzing and solving problems of relevant fields through classroom learning, literature study and discussion.