天津職業技術師範大學

Tianjin University of Technology and Education

Syllabus for Graduate Course

Management Science and Engineering

School of Economics and Management

2021.3.1

DIRECTORY

天津職業技術師範大學
Tianjin University of Technology and Education

Syllabus for Graduate Course

Course Name: Foundations of Management Mathematics

Course Code: **Course Type:** Professional Degree Course

Total Teaching Hours: 64 **Experimental Unites:**

Prerequisite Course: Advanced Mathematics, Linear Algebra, Probability Theory

Designed for: Management Science and Engineering

Instructor: Xiaohui Wang Contact number: 022-88287049

Prepare Date:

Credits: 4

1.Teaching Objectives

Fundamentals of Management Mathematics is a graduate degree course in management science and engineering, statistics, etc. The purpose of this course is to enable students to systematically master the basic concepts and theorems of management mathematics, and have the ability to apply these theories to analyze and solve problems, which includes proficient calculation skills, abstract thinking and reasoning skills, and application ability to solve practical problems in management.

Through the study of this course, students can achieve the following goals:

(1) On the basis of the knowledge of linear algebra, to further deepen and improve the theoretical knowledge of matrix, and cultivate the operation and expression of "number";

(2)To master the application of basic optimal control problems;

(3) To deeply understand the basic theory of convex analysis and its application in mathematical economy;

(4) To master the basic knowledge of fuzzy mathematics and learn how to deal with fuzzy information;

(5) To understand the random process commonly used in finance-Markov process.

2.Calendar

Teaching Content	Teaching Hours	
	Teaching	Experiment
Chapter 1: Matrix Theory	24 Class Hours	
1.1 Linear transformation and its matrix theory		
1.2 The standard form of the square matrix under similar transformation		
1.3 Estimation of the eigenvalues of the square matrix		
1.4 Matrix analysis		
Chapter 2: Functional Analysis	6 Class Hours	
2.1 Distance space and Banach's fixed point theorem		
2.2 The extreme value of the functional and the method of variation		
2.3 Basic optimal control problem 6 class hours		
Chapter 3: Convex Analysis	12 Class Hours	
3.1 Convex set and the separation theorem of convex set		
3.2 Convex function and subdifferential		
3.3 Extreme value of convex function and convex programming		
3.4 Fixed point theorems on convex sets		
Chapter 4: Fuzzy Mathematics	16 Class Hours	
4.1 Fuzzy Set		
4.2 Fuzzy relationship		
4.3 Fuzzy gray set and gray relationship		
4.4 Application case: fuzzy evaluation and optimization		
Chapter 5: Random Process	6 Class Hours	
5.1 General concept of stochastic process		
5.2 Markov process		
5.3 Application case: Markov prediction		
	Total Class Hours	64

3.Grading Policy

Examination

4.Textbooks and References:

Textbook:

[1]Du Gang,“Foundation of Management Mathematics”, Tianjin University Press, 2007.

References:

[1]Avinash K. Dixit, “Optimization Methods in Economic Theory”(Second Edition), Shanghai People's Publishing House, 2006.

[2]Du Dong, et al., “Modern Comprehensive Evaluation Methods and Case Selection”, Tsinghua University Press, 2008.

[3]Sergio M. Focardi, “ Mathematics in Financial Modeling and Investment Management”, Renmin University of China Press, 2011.

天津職業技術師範大學
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Syllabus for Graduate Course

Course Name:	Managerial Economics		
Course Code:		**Course Type:**	Professional Basic Course
Total Teaching Hours:	32	**Experimental Unites:**	
Prerequisite Course：:	Microeconomics ; Enterprise Management		
Designed for:	Management Science and Engineering		
Instructor:	Professor Lihua Zhao	**Contact Number:**	13820778546
Prepare Date：		**Credits:**	2

1. Teaching Objectives

The study of this course will enable students to achieve the following objectives:

(1)To understand the economic theories and the thinking framework of economic analysis required for the practice of enterprise management decision-making;

(2)To understand the operation rules of market economy in order to improve the ability and level of management decision-making;

(3) To master the basic methods of Managerial Economics;

(4) To master the effective operation of market mechanism;

(5) To master how enterprises make production decisions under different market structures;

(6)To master how to determine the actual price;

(7)To cultivate students' ability to analyze problems and enhanc their ability to apply the basic principles of microeconomics to solve practical problems.

(8) To discuss how to make management decisions by applying the specific principles of microeconomics combined with the specific internal and external environment of the enterprise.

2.Calendar

Teaching Content	Teaching Hours	
	Teaching	Experiment

Chapter 1: Introduction 2 Class Hours

1.1.Nature and Research Scope of Managerial Economics

1.2.Research Method of Managerial Economics

1.3.The Nature, Goals and Profits of the Enterprise

1.4.Market Supply and Demand and Market Mechanism

Chapter 2: Demand Analysis and Demand Forecasting 4 Class Hours

2.1.Demand Elasticity Analysis

2.2.Demand Estimation

2.3.Demand Forecasting

Chapter 3: Production Function Analysis 4 Class Hours

3.1.Production and Production Function

3.2.Production Function of One Type of Variable Input Element

3.3.Production Function of Two Types of Variable Input Element

3.4. Principle of Returns to Scale and Remuneration

3.5.Production Function and technological progress

Chapter 4: Cost Function Analysis 4 Class Hours

4.1.The concept of enterprise cost

4.2. Short-term Cost Function Analysis

4.3. Long-term Cost Function Analysis

4.4. Estimation of Cost Function

4.5. Application of Cost Theory

Chapter 5: Product Market Structure and Business Decision-making 4 Class Hours

5.1. Market Structure and Market Competition

5.2. Price and Output Decision-making in Perfectly Competitive Market

5.3. Price and Output Decision-making in perfect monopoly market

5.4. Price and Output Decision-making in

monopolistic competition market

5.5. Price and Output Decision-making in oligopoly market

Chapter 6: Pricing Practice of Manufacturer 4 Class Hours

6.1. Pricing Method of Cost Plus

6.2. Pricing Method of Incremental Analysis

6.3. Differential Pricing Method

6.4.Pricing Method of Multi-product

6.5.Pricing Method of New Product

6.6. Pricing Method of Internal Transference

6.7. Other Pricing Methods

Chapter 7: Factor Market and Management Decision of Enterprise 4 Class Hours

7.1. Factor Market

7.2. Labor Market and Management Decision of Enterprise

7.3. Land Market

7.4. Capital Market and Enterprise Investment Decision

Chapter 8: Risk Analysis in Enterprise Decision Making 4 Class Hours

8.1. Conception of Risk and Risk Measurement

8.2. Risk Theory in Economics

8.3.The Way of Risk Reduction

8.4. How to Consider Risk in Decision Making

8.5. Enterprise Decision Under Uncertainty

8.6. The Cost and Value of Information Collection 2 Class Hours

Chapter 9: Economic Function of Government

9.1. Market Efficiency

9.2. Disadvantages of Monopoly, Governmental Antitrust Policy and Control of Nature Monopoly Enterprise

9.3. External Economy Effect and Government Countermeasure

9.4. Public Goods and Its Supply

9.5. Incomplete Information and Government Intervention

9.6. Fairness and Efficiency

Total Class Hours 32

3.Grading Policy

20% final grades come from homework and 80% come from final exam.

4. Textbooks and References

Textbook:

[1] Deqing Wu et al., “Managerial Economics”, China Renmin University Press, 2010.

References:

[1] Zhigang Yuan chief editor, “Managerial Economics”, Fudan University Press, 2010.

[2] Salvatore write, Derong Leng, Wei Wang et al. translate, “Managerial Economics” 6th edition, Tsinghua University Press, 2009.

[3]Christopher R. Thomas, S. Charles Morris write, Zhangwu Chen et al. translate, “Managerial Economics” 9th edition, China machine press, 2009.

天津職業技術師範大學
Tianjin University of Technology and Education

Syllabus for Graduate Course

Course Name：	Operations Research		
Course Code：		**Course Type：**	Professional Degree Course
Total Teaching Hours：	32	**Experimental Unites:**	
Prerequisite Course：	Linear Algebra, Advanced Mathematics, Probability Theory And Mathematical Statistics		
Designed for：	Management Science and Engineering		
Instructor:	Rujing Hou	**Contact Number：**	88287912
Prepare Date:	August 30, 2018	**Credits：**	2

1.Teaching Objectives

Operations Research belongs to the level of technical science in the system of science and technology. In management school, it is a degree course for management science and engineering graduate students. The purpose of this course is to enable students to systematically master the basic concept, principle and method of operational research. The students should have the ability to correctly analyze and solve practical problems in management decisions, establish corresponding model and proficiently perform calculation (including the use of software). Also they should establish the ability of abstract thinking and reasoning etc.

Through the study of this course, students are able to achieve the following goals:

(1) To understand the important position of operations research in management science and engineering, and be familiar with the nature and process of mathematical modeling method.

(2) To consolidate the basic theories and methods in operations research.

(3) To master decision theory, dynamic programming, queuing theory, inventory system modeling and analysis methods.

(4) To be able to analyze, model and solve some typical problems in economy and management with knowledge and methods of operations research.

2.Calendar

Teaching Content	Teaching Hours	
	Teaching	Experiment
Chapter 1: Introduction	2 Class Hours	
1.1Emergence and Development of OR		
1.2Process of OR Problem Solving		
1.3 Main Content and Application of OR		
Chapter 2: Linear Programming	6 Class Hours	
2.1Overview of Linear Programming		
2.2 Simplex Method		
Chapter 3: Decision Theory	6 Class Hours	
3.1Overview of Decision Theory		
3.2Risk-based Decision Making Method		
Chapter 4: Dynamic Programming	6 Class Hours	
4.1Multi-Stage Decision Making Problem		
4.2Basic Concept of Dynamic Programming		
4.3Application of Dynamic Programming		
Chapter 5: Queuing Theory	8 Class Hours	
5.1Overview of Queuing Theory		
5.2Negative Exponential Distribution Queuing System Model		
5.3Optimization of Queuing System		
5.4Random Simulation Technology		
Chapter 6: Inventory Theory	4 Class Hours	
6.1Inventory System and Parameters		
6.2Inventory System with Certain Demand		
6.3Inventory System with Uncertain Demand		
	Total Class Hours	32

3.Grading Policy

This is an exam course. The final test and usual performance will account for 80% and 20% respectively.

4.Textbooks and References

Textbook:

[1] Hao Hai, Xiong DeGuo, Logistics Operations Research, Tsinghua University Press, 2010.

References:

[1]Hu Yunquan, Operations Research Course (Revised Edition), Tsinghua University Press, 2011.

[2]Du Gang, Wu Yuhua, Fundamentals of Management Science, Tianjin University Press, 2012.

[3]Hillier and Lieberman, Introduction to Operations Research, California, 2005.

天津職業技術師範大學
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Syllabus for Graduate Course

Course Name：	Managerial Decision Model and Method		
Course Code:		**Course Type:**	Professional Degree Course
Total Teaching Hours：	24	**Credits:**	2
Prerequisite Course：	Management Theory, Statistics, Operations Research		
Designed for：	Management Science and Engineering		
Instructor:	Lecturer Linqian Dong	**Contact Number：**	022-88287049

1.Teaching Objectives

Managerial decision model and method is a science of applying scientific methods to assist management decision-making on management problems related to quantitative factors. The content includes the basic concept and theory of management decision-making, input-output analysis, analysis of variance, analytic hierarchy process, clustering analysis, break-even and risk analysis and decision-making, AMOS model, etc. The goals of the present course are as follows:

(1)To make students be more aware of the importance of data modeling and decision-making in economics and management;

(2)To master the basic concepts, basic models and basic methods of the main branches of data model and decision making;

(3)To learn to use data model and the basic principles and methods of decision-making to analyze and solve practical problems;

(4)To be familiar with data models and computer solutions of major decision models.

2.Calendar

Teaching Content	Teaching Hours	
	Teaching	Experiment
Chapter 1: Introduction to Management Decision-Making	2 Class Hours	
1.1 The Concept and Classification of Management Decision		
1.2 The Method of Managemen Decision		
Chapter 2: Input-Output Model	6 Class Hours	

2.1 In-output Analysis and Input-output Table

2.2 The Balance Equation of Input-output Model

2.3 The Application of Input-output Analysis

“Input-output Model” Class Discussion

Chapter 3: Factor Analysis 6 Class Hours

3.1 Factor Analysis Model and Concept

3.2 The Steps of Factor Analysis

3.3 Application of Factor Analysis

“Factor Analysis” Class Discussion

Chapter 4: Cluster Analysis 6 Class Hours

4.1 The Method of Cluster Analysis

4.2 Data Processing of Cluster Analysis

4.3 Systematic Clustering Method

Cluster Analysis Class Discussion

Chapter 5: Analytic Hierarchy Process 6 Class Hours

5.1 The Principle of Analytic Hierarchy Process

5.2 The Basic Steps of AHP

5.3 The Main Application of AHP

“Analytic Hierarchy Process”Class Discussion

Chapter 6: Profit and Loss Analysis and Risk Decision-Making 6 Class Hours

6.1 The Principle of Profit and Loss Analysis and Risk Decision

6.2 The Application of Profit andLoss Analysis and Risk Decision

“Profit and Loss Analysis and Risk Decision Making” Class Discussion

Total Class Hours 24

3.Grading Policy

4.Textbooks and References

Textbook:

[1]Wang Zhongji, “Management Decision Models and Methods”, China Railway Publishing House, 2011.

References:

[1]Ren Jianbiao Translated, “Data Models and Decision Making”, Beijing: China Financial and Economic Press, 2004.

[2]Ding Yizhong, Ed., “Management Science”, Beijing: Tsinghua University Press, 2003.

[3]Fan Xixi Translated, “The Case of Management Science”, Beijing: China Machine Press, 1999.

[4] Jianjun Shi, Xizhi Xing I, “Statistics Course”, Nanjing: Nanjing University Press,

2000.

[5]Liu guangzu, Ed I, “Probability theory and applied mathematical statistics”, Beijing: higher education press, 2000.

[6]Wu Yuhua I, “The Basis of Management Science”, Tianjin: Tianjin University Press, 2001.

[7] Wu Minglong I, “Structural Equation Modeling”, Chongqing: Chongqing University Press, 2009.

天津職業技術師範大學
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Syllabus for Graduate Course

Course Name：	Professional English		
Course Code：		**Course Type：**	Professional Degree Course
Total Teaching Hours：	16	**Experimental Unites:**	
Prerequisite Course：			
Designed for：	Management Science and Engineering		
Instructor:	Professor Lili Qi	**Contact Number：**	88287049
Prepare Date:		**Credits：**	1

1.Teaching Objectives

The purpose of this course is to cultivate and improve the postgraduates' practical application ability of listening, speaking, reading and writing professional English in the field of economic management, so that students can understand and master professional English vocabulary, and improve their ability of reading comprehension and translating professional foreign language literature.

Through the study of this course, students can achieve the following goals:

(1)To gain a higher level of professional English listening, speaking, reading and writing ability in the field of economic management;

(2)To acquire the ability to read and understand professional foreign language literature;

(3)To master the basic translation skills of professional foreign literature and improve the translation ability.

2.Calendar

Teaching Content	Teaching Hours	
	Teaching	Experiment
Lecture 1:Appendix Examples of Translation Skills 1-6 Chapter 1: Macroeconomics	2 Class Hours	
Lecture 2:Appendix Examples of Translation Skills 7-13 Chapter 2: Macroeconomics	2 Class Hours	

Lecture 3:Appendix Examples of Translation Skills 14-20 Chapter 3: Statistical analysis in decision making	2 Class Hours
Lecture 4:Examples of Sentence Translation Skills 1-2 Chapter 3 Statistical analysis in decision making	2 Class Hours
Lecture 5:Examples of Sentence Translation Skills 3 Chapter 4: Management Information System	2 Class Hours
Lecture 6:Examples of Sentence Translation Skills 4 Chapter 5: Operations Management	2 Class Hours
Lecture 7:Examples of Sentence Translation Skills 5 Chapter 6: Operations Management	2 Class Hours
Lecture 8:Examples of Sentence Translation Skills 6 Chapter 7: Marketing	2 Class Hours
Total Class Hours	16

3.Grading Policy

Non-test based course.

4.Textbooks and References

Textbook:

[1]Dai Xianyuan, “a textbook of college english in economics and management”, Peking University Press, 2009（printed in December 2016）.

References:

[1]Fu Meirong, “Professional English”, University of International Business and Economics Press, 2012.

[2]Li Yan, “Human resource management professional English course”, Tsinghua University Press, 2012.

天津職業技術師範大學
Tianjin University of Technology and Education

Syllabus for Graduate Course

Course Name：	Intermediate Econometrics		
Course Code：		**Course Type：**	Professional Degree Course
Total Teaching Hours：	24	**Experimental Unites:**	0
Prerequisite Courses：	Calculus, Linear Algebra, Probability Theory and Mathematical Statistics, Western Economics, Computer Foundation		
Designed for：	Management Science and Engineering		
Instructor:	Associate Professor Shugong Dong	**Contact number：**	15902282242
Prepare Date:	2020.3.10	**Credits：**	2

1.Teaching Objectives

This course is a systematic teaching of intermediate econometrics. Students are required to achieve the following teaching objectives through the study of this course:

(1)To master systematically the setting, estimation and testing methods of various econometric models;

(2) To be proficient in modeling with Eviews (or other related software);

(3)To be able to track the new development of econometric model methods in related professional fields, and try to use econometric analysis methods for research.

2.Calendar

Teaching Content	Teaching Hours	
	Teaching	Experiment
Chapter 1: Introduction to intermediate Econometrics	2 Class Hours	
Chapter 2: Multiple linear regression analysis	4 Class Hours	
2.1 Estimation of multiple linear regression model		
2.2 Test of multiple linear regression model		
2. 3 Prediction of multiple linear regression model		
2. 4 Nonlinear regression model		

2.5 Calculation process and case analysis of multiple linear regression model

Chapter 3: Heteroscedasticity 2 Class Hours

3.1 The meaning and cause of Heteroscedasticity

3.2 The influence of Heteroscedasticity

3.3 Test of Heteroscedasticity

3.4 The solution of heteroscedasticity

3.5 Case analysis

Chapter 4: Autocorrelation 2 Class Hours

4.1 Autocorrelation and its causes

4.2 The consequence of autocorrelation

4.3 Autocorrelation test

4.4 The solution of autocorrelation

4.5 Case analysis

Chapter 5: Multicollinearity 2 Class Hours

5.1 Multicollinearity and its causes

5.2 Effects of Multicollinearity

5.3 Test of Multicollinearity

5.4 Solutions to Multicollinearity

5.5 Case analysis

Chapter 6: Some special problems of single equation regression model 4 Class Hours

6.1 Dummy variables

6.2 Discrete dependent variable model

6.3 Setting error of model

6.4 Observation error of model variables

6.5 Random explanatory variables

6.6 Case analysis

Chapter 7: Lag variable model 2 Class Hours

7.1 The basic concept of lag model

7.2 Finite distribution lag model and its estimation

7.3 Geometric distributed lag model

7.4 Estimation of autoregressive model

7.5 Case analysis

Chapter 8: Time series analysis 2 Class Hours

8.1 Basic concepts of time series

8. 2 Stationary test of time series

8. 3 ARIMA model

8.4 Cointegration theory and error correction model

8.5 Granger causality test

8.6 Vector autoregressive model (VAR)

8.7 Johansen cointegration test and vector error correction model

8.8 Case analysis

Chapter 9: Simultaneous equations model (sketch) 2 Class Hours

Chapter 10: Panel data model (sketch) 2 Class Hours

Total Class Hours 24

3.Grading Policy

Using econometric analysis method to complete the task of writing a short paper.

4.Textbooks and References

Textbook:

[1] Zhang Xiaodong, "Econometrics, Tsinghua University Press", 2015.7.

References：

[1]Gao Tiemei, "Econometric analysis methods and modeling: Eviews applications and examples" (Second Edition). Beijing: Tsinghua University Press, 2009.

[2]Li Zinai, Pan Wenqing, "Econometrics" (Third Edition), Beijing: Higher Education Press, 2010.

[3]Jeffrey M. Woodridge, "Introduction to Econometrics: Modern Perspectives" (Fifth Edition). Beijing: Tsinghua University Press, 2014.

[4]Damodar, N. guzalati, "Fundamentals of Econometrics" (Volume I, Volume II, Fifth Edition),Beijing: China Renmin University Press, 2011.

[5]William H. green, "Econometric analysis" (Volume 1, Volume 2, 7th Edition). Beijing: China Renmin University Press, 2013.

[6]Pan Shengchu, "Intermediate course of econometrics. Beijing: Tsinghua University Press", 2009.

[7]Li Zinai, Ye Azhong, "Advanced applied econometrics", Beijing: Tsinghua University Press, 2012.

[8]Zhu Jianping, Hu Chaoxia, Wang Yiming, " Introduction to advanced econometrics", Beijing: Peking University Press，2009.

[9]Li Baoren, "Advanced econometrics. Beijing: Economic Science Press"，2012.

[10]Jin Yunhui, Jin Sainan, “Advanced Econometrics” (Volume 1). Beijing: Peking University Press, 2007.

[11]Jin Yunhui, Jin Sainan, “Advanced Econometrics” (Volume 2). Beijing: Peking University Press, 2011.

[12]Zhang Xiaodong, “Eviews guidelines and cases”, Beijing: China Machine Press，2007.

[13]Yi Danhui, “Data analysis and Eviews application”, Beijing: China Renmin University Press, 2008.

[14]Sun Jingshui, “Econometrics Study Guide and Eviews Application guide”, Beijing: Tsinghua University Press, 2010.

[15]Zhang Dawei, Liu Bo, Liu Qi, “ Eviews data statistics and analysis course”, Beijing: Tsinghua University Press, 2010.

[16]Peter Kennedy, “A Guide to Econometrtics” Sixth Edition, Wiley-Blackwell，2008.

[17]Christopher Dougherty, “Introductoin to Econometrtics” (Fourth Edition), Pearson Education. Oxford University Press. 2011.

[18]Marno Verbeek, “A Guide to Modern Econometrtics”, (Fourth Edition), England:John Wiley and Sons Ltd, 2012.

[19]Papers on econometric analysis published in relevant domestic academic journals, such as Economic Research, Statistical Research, Quantitative Economic and Technological Economic Research, World Economy and Economic Quarterly.

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Syllabus for Graduate Course

Course Name：	Operations Management		
Course Code：		**Course Type：**	Professional degree course
Total Teaching Hours：	32	**Experimental Unites:**	
Prerequisite Course：	Fundamentals of Management Mathematics, Management Economics, Operational Research		
Designed for：	Management Science and Engineering discipline		
Instructor:	Associate Professor Xidong Zhai	**Contact Number：**	88287049
Prepare Date:		**Credits：**	2

1.Teaching Objectives

According to the idea of the life cycle of the operation system, this course organizes the operation management activities organically from the generation (design) of the production operation system to the operation (planning and control) of the production operation system, to the regeneration (improvement) of the production operation system, and forms the system structure of operation management. This course also involves the methods of operation research and statistics. Students are required to master the basic principles and methods of operation management, and can apply theory to analyze practical problems and solve them to a certain extent. Through the study of this course, students can have a deep understanding of the objective laws of the operation process of manufacturing and service industries, and have a good grasp of the concepts, methods and means of improving management efficiency and enhancing enterprise competitiveness through operation management. In the course of learning, students are also required to track and study the latest developments in operation management.

2.Calendar

Teaching content	Teaching Hours	
	Teaching	Experiment
Chapter 1: Basic concept 1.1 Basic functions of social organizations	3 Class Hours	

1.2 Classification of production operation 1.3 Types of production operation 1.4 The matching of ability and demand 1.5History and Development Trend of Production Operation Management	
Chapter 2: Enterprise Strategy and Operation Strategy 2.1 The Environment of Modern Enterprises 2.2Enterprise Strategy and Strategic Management 2.3 Production and operation strategy	3 Class Hours
Chapter 3: Location of production and service facilities 3.1The importance and difficulty of site selection 3.2Factors affecting site selection and general steps of site selection 3.3 Evaluation Method of Site Selection	3 Class Hours
Chapter 4: Demand forecast 4.1 Forecast 4.2 Method of qualitative forecast 4.3 Methods of quantitative prediction 4.4 Forecasting errors and monitoring	3 Class Hours
Chapter 5: Integrated production plan 5.1General concept of planning management 5.2 Comprehensive planning strategy 5.3The formulation of MTS annual production plan 5.4The formulation of MTO annual production plan	6 Class Hours
Chapter 6: Inventory management 6.1 Inventory 6.2 Basic Model of Inventory Problem 6.3 Stochastic inventory problem	3 Class Hours
Chapter 7: Material demand plan and enterprise resource plan 7.1Principle of MRP 7.2MRP system 7.3 MRP Ⅱ 7.4Technical issues in MRP system design decision and application 7.5 Allocation requirements plan 7.6 Enterprise resource planning	6 Class Hours

Chapter 8: Supply chain management	
8.1The propose of idea of Supply Chain Management	
8.2 Supply chain system design	
8.3 Logistics Management under Supply Chain Management	3 Class Hours
8.4 Inventory Control Method under Supply Chain Management	
8.5Purchasing management in supply chain management environment	
8.6 Supplier management	
Chapter 9: Project plan management	
9.1 Project management overview	
9.2Network method	3 Class Hours
9.3 Calculation of Network Time Parameters	
9.4Network plan optimization	
Chapter 10: On-time and precision production	
10.1 The essence of JIT	
10.2 Kanban-control system	
10.3Conditions for organizing on-time production	3 Class Hours
10.4 Lean production	
Examination	2 Class Hours
	Total Class Hours 32

3.Grading Policy

Examination

4.Textbooks and References:

Textbook:

[1]Chen Rongqiu, edited by Ma Shihua, “Production operation management”, Machinery Industry Publishing House, 2012

References:

[1]Stevenson, Zhang Qun, Zhang Jie, “Operation management”, Machinery Industry Press, 2008.

[2]Richard B.Chase, “Operation management”, Machinery Industry Press, 2011.

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Syllabus for Graduate Course

Course Name：	Corporate Finance Theory and Practice		
Course Code:		**Course Type:**	Professional Degree Course
Total Teaching Hours：	24	**Experimental Unites:**	
Prerequisites:	Western Economics, Finance		
Designed for：	Management Science and Engineering		
Instructor:	Associate Professor Weidi Wu	**Contact Number：**	13920833757
Prepare Date:	2021.3.7	**Credits:**	1.5

1. Teaching Objectives

Through the study of this course, students can achieve the following goals:

(1) To understand the basic theories, basic knowledge and basic methods of corporate finance;

(2) To grasp the process in which the company, a micro entity, maximizes the value of the company through investment decisions;

(3) To master the process in which the company, a micro entity, realizes the maximum value of the company through financing decisions;

(4) To grasp the process in which the company, a microscopic entity, uses dividend decision-making to maximize the value of the company.

2.Calendar

Teaching Content	Teaching hours	
	Teaching	Experiment
Chapter 1: Modern Company System 1.1.The Concept of the Company 1.2.The Company's Goals 1.3.The Company's Operations 1.4.The Content of Company Financial management	4 Class Hours	

Chapter 2: Value Measurement 4 Class Hours

2.1. The Time Value of Money

2.2. Interest rate and Discount Rate

2.3.Valuation of Marketable Securities-bond valuation

2.4.Valuation of Marketable Securities-stock valuation

Chapter 3: Risk Measurement 4 Class Hours

3.1.The Mathematical Expression of Risk

3.2.The Choice of Investment Portfolio

3.3.Risk and Return Theory-capital Asset Pricing Model

3.4.Risk and Return Theory-arbitrage Pricing Model

Chapter 4: Capital Budget Law 4 Class Hours

4.1.Overview of Capital Budget

4.2.Evaluation of Common Budget Rules

4.3.Capital Budget under the Condition of Capital Allocation

Chapter 5: Capital Structure Decisions 4 Class Hours

5.1.Early Capital Structure Theory

5.2.MM theory

5.3.Trade-off Theory

5.4.Other Theories

Chapter 6: Dividend Policy Decision 4 Class Hours

6.1.Financial IndicatorsRelated to Dividends

6.2.Dividend Payment Procedures

6.3.The Method of Dividend Payment

6.4.The Practice of Dividend Payment

Total Class Hours 24

243. Grading Policy

This course is an exam course. The final written test accounts for 80% of the total score, and the usual scores account for 20% of the total score. The usual scores include classroom performance, attendance, homework, etc.

4. Textbooks and References

Textbook:

[1] Chen Yulu, “Company Finance”, Higher Education Press, 2014.

References:

[1] Yao Yilong, “Modern Corporate Finance”, Machinery Industry Press, 2010.

[2]Yao Yilong, “Modern Corporate Finance Exercise Collection”, Machinery Industry Press, 2010.

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Syllabus for Graduate Course

Course Name：		Financial Risk Management	
Course Code：		**Course Type：**	Degree Courses
Total Teaching Hours：	24	**Experimental Unites:**	
Prerequisite Course：	Finance, Statistics, Intermediate Econometrics		
Designed for：	Management Science and Engineering		
Instructor:	Lecturer Haibo Lei	**Contact Number：**	
Prepare Date:	2021.03.05	**Credits：**	1.5

1.Teaching Objectives

Through the study of this course, students are able to achieve the following goals:

(1)To master the basic theories and methods of financial risk management.

(2)To master the identification, evaluation and management methods of credit risk, market risk, operational risk, interest rate risk, liquidity risk, exchange rate risk, etc.

(3)To be proficient in tools of financial risk management.

2.Calendar

Teaching Content	Teaching Hours	
	Teaching	Experiment
Chapter 1: An overview of financial risk management	2 Class Hours	
1.1.The connotation of financial risk management		
1.2.Organizational structure of financial risk management		
1.3.Financial risk management process		
Chapter 2: Financial risk identification and management	2 Class Hours	
2.1. Financial risk identification method		

2.2.Financial risk measurement tools and methods

2.3.How to deal with financial risks

Chapter 3: Credit risk 4 Class Hours

3.1.Identification of credit risks

3.2.Measurement of credit risk

3.3.Credit risk management methods

Chapter 4: Market risk 4 Class Hours

4.1.Overview of market risks

4.2.Market risk measurement

4.3.Market risk management

Chapter 5: Operational risk 2 Class Hours

5.1.Identification of operational risks

5.2. Measurement of operational risk

5.3.Operational risk management

Chapter 6: Interest rate risk 4 Class Hours

6.1.Identification of interest rate risk

6.2.Measurement of interest rate risk

6.3.Interest rate risk management

Chapter 7: Currency risk 2 Class Hours

7.1.Identification of currency risks

7.2.Measurement of currency risk

7.3.Management of currency risks

Chapter 8: Liquidity risk 4 Class Hours

8.1.Identification of liquidity risks

8.2.Measurement of liquidity risk

8.3.Management of liquidity risks

Total Class Hours 24

3.Grading Policy

This course focuses on the practical application of financial risk management tools for students, and the final examination is in the form of course paper. The total score of the course is made up of the regular grades and the final grades, of which the regular grades account for 40% and the final course paper accounts for 60%.

4.Textbooks and References

Textbook：

[1]Zhu Shuzhen,“Financial Risk Management”, Beijing University Press,

September,2017.

Reference books：

[1]John C. Hull,“Risk Management and Financial Institutions” (Fourth Edition), John Wiley & Sons, Inc., March, 2015.

[2] Peter F. Christoffersen,“Elements of Financial Risk Management”(Second Edition), Academic Press, 2012.

[3]Lu Jing,“Financial Risk Management”, China Renmin University Press, January, 2019.

天津職業技術師範大學
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Syllabus for Graduate Course

Course Name：	Financial Engineering		
Course Code：		**Course Type：**	
Total Teaching Hours：	24		
Prerequisite Course：	Finance, Corporate Finance, Investment Principles		
Designed for：	Management Science and Engineering		
Instructor：	Lecturer Na Liu	**Contact Number：**	18602611693
Prepare Date:	2021.3.5	**Credits：**	

1.Teaching Objectives

Through the study of this course, students are able to achieve the following goals:

(1)To understand the background of financial engineering andthe relationship between financial engineering and innovation;

(2) To master the basic theory of Forward, Futures, Options, Swaps and other derivative financial products;

(3)To master the pricing principle of derivative financial products;

(4)To master the basic hedging principles of the derivative financial products;

(5)To understand the application of financial engineering techniques and methods in risk management and the design and development of financial products;

(6)To develop students' thinking of financial engineering and its application in solve financial problems creatively.

2.Calendar

Teaching Content	Teaching Hours	
	Teaching	Experiment
Chapter1: An Overview of Financial Engineering 1.1. Definition of Financial Engineering 1.2. Analysis Methods of Financial Engineering	2 Class Hours	
Chapter 2: The Trading and Pricing of Forward and	9 Class Hours	

Future

2.1.Introduction to Forward and Future Instruments

2.2.The Trading Strategies of Forwards and Futures

2.3.The Comparison between Forwards and Futures

2.4.The pricing of Forwards and Futures

Chapter 3: The Pricing and Application of Swaps 5 Class Hours

3.1.The Genetation of Swaps

3.2.Common Swap Instruments and its Application

3.3.The Value and Pricing of the Swaps

Chapter 4: An Introduction to Options and their Trading Strategies. 4 Class Hours

4.1.The Basic Terminology and Classification of Options

4.2.The Basic Trading Strategies for Options

4.3.The Portfolio Trading Strategies for Options

Chapter 5: The Pricing of Options 4 Class Hours

5.1.The Black-Scholes Model

5.2.The Binomial Model

Total Class Hours 24

3.Grading Policy

70 percent of grades are based on final examination and the rest is based on usual performance. The usual performance includes class performance, attendance, homework and so on. In the final exam, basic theory accounts for 80% and applied analysis accounts for 20%.

4.Textbooks and References

Textbook:

[1]YonggangYe, “Introducion to Financial Engineering” (Third edition), Wuhan University press, 2017.

References：

[1]Zhenlong Zheng and Yong Chen, “Financial Engineering”, Higher Education Press, 2016.

[2]Writted by Keith Carthberson waits, translated by Taowei Zhang, “Financial Engineering”, Higher Education Press, 2016.

[3] John C. Hull, “Fundamentals of Futures and Options Markets” (9th edition).

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Syllabus for Graduate Course

Course Name：	Supply Chain Management		
Course Code：		**Course Type：**	Professional Degree Courses
Total Teaching Hours：	24	**Experimental Unites:**	
Prerequisite Course：	No		
Designed for：	Management Science and Engineering		
Instructor:	Professor Qiaolun Gu	**Contact Number：**	88287049
Prepare Date:		**Credits：**	1.5

1. Teaching objectives

This course is an elective course for master degree students majoring in management science and engineering. It aims to enable students to understand and master how to manage and operate the logistics, information flow and capital flow of enterprises in the current global economic integration environment. The content includes the basic theory of supply chain management, supply chain construction and optimization, coordination management of supply chain operation, supply chain logistics management, inventory control under supply chain management environment, production planning and control under supply chain management environment, and supply chain risk management. Through the study of this course, the students will have the basic knowledge of supply chain management and master the methods and means of supply chain management. The focus is to cultivate the students' ability to analyze and solve specific problems through model examples, so as to lay the foundation for the follow-up study and research work.

2.Calendar

Teaching Content	Teaching Hours	
	Teaching	Experiment
Chapter 1: Basic theory of supply chain management 1.1Supply chain management elements and structure system framework 1.2 Classification of supply chain structure	2 Class Hours	

1.3 Integrated supply chain management 1.4Operation mechanism of supply chain management Chapter 2: Construction and optimization of supply chain 2.1System framework of supply chain construction 2.2Design principles of supply chain construction 2.3 Structure model of supply chain 2.4Design strategy of supply chain construction 2.5 Design and optimization method of supply chain construction	4 Class Hours
Chapter 3:Coordination management of supply chain operation 3.1 Several forms of supply chain coordination 3.2Methods of improving supply chain coordination 3.3 Incentive mechanism of supply chain 3.4 Supply contracts and types	4 Class Hours
Chapter 4: Supply chain logistics management 4.1Logistics management under the environment of supply chain management 4.2Enterprise logistics management under the environment of supply chain management 4.3Decision analysis of logistics outsourcing and self-operating 4.4Third party logistics and fourth party logistics 4.5 Reverse logistics and green logistics	2 Class Hours
Chapter 5:Inventory control in supply chain management 5.1 Basic principles and methods of inventory management 5.2 Supply chain inventory management 5.3Joint inventory management and multilevel inventory management 5.4Inventory management mode combining	4 Class Hours

push and pull

Chapter 6:Production planning and control under the environment of supply chain management	
6.1Characteristics of production planning and control	4 Class Hours
6.2 Methods of production planning and control	
6.3Modulation mechanism of production system	
Chapter 7: Supply chain risk management	
7.1 Supply chain risk and identification	
7.2 Supply chain risk analysis	2 Class Hours
7.3 Supply chain risk response	
7.4 Reconstruction of flexible supply chain	
Examination	2 Class Hours
	Total Class Hours 24

3.Grading Policy

Examination

4.Textbooks and References

Textbook:

[1] Ma Shi-hua and Lin yong, “Supply Chain Management” (Third Edition), China Machine Press, 2010.

References:

[1] Gu Qiao-lun, “Models and Decisions for R/M Integrated Supply Chain”，Science Press，2015.

[2] S. D. P. Flapper, J. A.E.E. van Nunen and L. N. Van Wassenhove, “Managing Closed-loop Supply Chains”, Springer, 2005.

[3] Sunil Chopra, Peter Meindl, Translated by Chen Rong-qiu et al，”New Product Success Stories: Supply Chain Management”(Fifth Edition)，China Renmin University Press，2013.

天津職業技術師範大學
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Syllabus for Graduate Course

Course Name:		Logistics System Simulation	
Course Code:		**Course Type:**	Professional degree courses
Total Teaching Hours:	24	**Experimental Unites:**	
Prerequisite Course:	Logistics		
Designed for:	Management Science and Engineering		
Instructor:	Qiang Fu	**Contact Number:**	88287049
Prepare Date:		**Credits:**	1.5

1.Teaching Objectives

The contents include basic knowledge of logistics system, modeling method of logistics system, simulation technology of logistics system, analysis of simulation input and output data, simulation software of logistics system, modeling and Simulation of queuing system and modeling and Simulation of inventory system, etc.

Through the study of this course, students can achieve the following goals:

(1)To understand the basic concept of discrete event dynamic system, the basic method and process of simulation;

(2)To master the architecture of logistics system, such as business logistics system, supply chain system, production logistics system, transportation and distribution system and warehousing system;

(3)To master the basic theory, method and practical application of logistics system modeling and simulation comprehensively and systematically, and understand the application of intelligent optimization technology in logistics system simulation;

(4) To master the application of a common logistics simulation software.

2.Calendar

Teaching Content	Teaching Hours

	Teaching	Experiment
Chapter 1: An overview of logistics system		
1.1 Basic concepts and ideas of system		
1.2 Logistics system foundation	2 Class Hours	
1.3 Structure of logistics system		
1.4 Logistics system analysis and evaluation		
Chapter 2: Modeling method of logistics system		
2.1 Principles of logistics system modeling		
2.2 Steps of logistics system modeling	4 Class Hours	
2.3 Introduction to logistics system modeling method		
2.4 Modeling method based on Petri net		
Chapter 3: Logistics system simulation technology		
3.1Basic concepts of logistics system simulation	2 Class Hours	
3.2 Logistics system simulation strategy		
3.3 Visualization technology		
Chapter 4: Simulation input and output data analysis		
4.1 Simulation input data collection		
4.2 Simulation input data analysis	4 Class Hours	
4.3 Random numbers and random variables		
4.4 Simulation output data analysis		
Chapter 5: Logistics simulation software		
5.1 Flexsim	6 Class Hours	
5.2 Witness		
5.3 AnyLogic		
Chapter 6: Modeling and Simulation of queuing system		
6.1 Overview of queuing system		
6.2 Problem description of queuing system	4 Class Hours	
6.3 Queuing system modeling		
6.4 Queuing system simulation		
6.5 Model operation and result analysis		
Chapter 7: Modeling and Simulation of inventory system		
7.1 Inventory system overview	2 Class Hours	
7.2 Inventory system problem description		
7.3 Inventory system modeling and simulation		

Total Class Hours 24

3.Grading Policy

Examination.

4.Textbooks and References:

Textbook:

[1]Li Wenfeng, Yuan Bing, Zhang Yu, “Logistics system modeling and simulation”, Science Press, 2010.

References:

[1]Chu Xuejian, “Supply chain logistics information simulation system”, Shanghai: Shanghai Sanlian bookstore, January 2004.

[2]Zhou Hong, “Analysis and design of enterprise distribution management simulation system under e-commerce”, Beijing: Economic Science Press, August 2005.

[3]Jin Xiwan, “Logistics management information system”, Nanjing: Southeast University Press, August 2006.

[4]Zhang Xiaoping, Shi Wei, Liu Yukun, “Logistics system simulation”, Beijing: Tsinghua University Press, July 2008.

[5]Xu Ruihua, “Transportation and logistics system simulation”, Shanghai: Tongji University Press, February 2009.

[6]Wang Hongwei, Xie Yong, Wang Xiaoping, Qi chao. Logistics system simulation. Beijing: Tsinghua University Press, April 2009.

[7]Peng Yang, Wu Chengjian. Logistics system modeling and simulation. Hangzhou: Zhejiang University Press, May 2009.

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Tianjin University of Technology and Education

Syllabus for Graduate Course

Course Name：	Logistics System Planning and Design		
Course Number：		**Course Type:**	Professional Degree Courses
Total Teaching Hours：	40	**Experimental Unites:**	0
Prerequisite Courses：	Principles of Management, Production and Operations Management, Operations Research		
Designed for：	Management Science and Engineering		
Instructor：	Lecturer Jing Lu	**Contact Number:**	15122178956
Prepare Date:	2021.3.7	**Credit：**	2

1.Teaching Objectives

Through the study of this course, students are able to achieve the following goals:

(1) To learn the basic concepts, basic problems and main contents of logistics system and its planning and design, understand the definition, characteristics and modes of logistics system, as well as the purpose, principles and contents of logistics system planning and design;

(2)To understand the strategic planning of logistics system and learn the methods of target analysis of logistics system;

(3)To master node planning and design of logistics system, route planning and design and network planning and design;

(4)To master the analysis and simulation methods of logistics system, and have an in-depth understanding of the comprehensive evaluation of logistics system planning and design; To master decision making method of logistics system.

2.Calendar

Teaching Content	Teaching Hours	
	Teaching	Experiment
Chapter 1: Logistics system and its planning and	2 ClassHours	

design	
1.1Concept, characteristics and modes of logistics system	
1.2Elements and integration of logistics system	
1.3Objectives and principles of logistics system planning and design	
1.4Actual content and stage of logistics system planning	
Chapter 2: Logistics system strategic planning	2 Class Hours
2.1Logistics system strategic planning system	
2.2Formulation of logistics system strategic planning	
2.3Implementation of logistics system strategic planning	
2.4Control of strategic planning of logistics system	
Chapter 3:Preliminary analysis of logistics system	2 Class Hours
3.1 Problem clarification	
3.2 Objectives setting of the logistics system	
3.3Function of logistics system objective analysis	
3.4Logistics system target analysis method	
Chapter 4:Logistics system node planning and design	4 Class Hours
4.1Types and functions of logistics nodes	
4.2Site selection planning of logistics nodes	
4.3Logistics node layout planning	
4.4Planning and design of distribution center	
4.5Logistics center planning and design	
Chapter 5: Logistics System Route Planning and Design	4 Class Hours
5.1Logistics system line overview	
5.2Mode of transportation of logistics routes	
5.3Choice of logistics system line	
5.4Route planning and design of logistics system	
Chapter 6:Logistics System Network Planning	4 Class Hours

and Design

6.1Logistics system network overview

6.2Structure type of logistics system network

6.3Planning and design of logistics system network

6.4Organization design of the logistics system network

6.5Regional logistics system planning

Chapter 7:The analysis and simulation of logistics system — 2 Class Hours

7.1Essence and principle of logistics system analysis

7.2Structure analysis of the logistics system

7.3Simulation foundation of logistics system

7.4Discrete Event System Simulation

Chapter 8:Comprehensive Evaluation of Logistics System Planning and Design — 2 Class Hours

8.1Logistics system evaluation overview

8.2Index system of logistics system evaluation

8.3Multi-index comprehensive evaluation method

Chapter 9: Logistics System Decision — 2 Class Hours

9.1Logistics system decision-making overview

9.2The third party logistics decision

9.3Non-deterministic logistics system decision

9.4Risk-oriented logistics system decision-making

Total Class Hours 24

3.Grading Policy

(1) Two times homework

(2) A paper

4.Textbooks and References

Textbook:

[1]Zhang Li, Hao Yong, Huang Jianwei, Logistics System Planning and Design (Second Edition). Tsinghua University Press, 2013.

References：

[1]Fang Zhongmin, “Logistics System Planning and Design”. China Machine Press, 2015.

[2]Fu Liping, “ Logistics System Planning and Design”. Tsinghua University Press, 2018.

[3]Gianpaolo Ghaini, Gilbert Laporte, Roberto Musmanno, “Introduction to Logistics Systems Planning and Contro”. J. Wiley, 2004.

[4]Ehmke, Jan Fabian, “ Integration of Information and Optimization Models for Routing in City Logistics”. Springer, Limited; Springer, 2012.

[5]He Binghua, “Logistics System Planning and Design and Software Application”. Beijing Jiaotong University Press, 2012.

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Syllabus for Graduate Course

Course Name：	Information System Analysis and Design		
Course Code：		**Course Type：**	Professional degree courses
Total Teaching Hours:	24	**Experimental Time:**	
Prerequisite Courses：	Database Technology and Management Information System Knowledge		
Designed for：	Management Science and Engineering		
Instructor:	Professor Lili Qi	**Contact Number：**	88287049
Prepare Date:		**Credits：**	1.5

1. Teaching Objectives

This course aims to enable students to master the application of various methods of system analysis and design on the basis of in-depth mastering and fully understanding the theories of demand analysis, system analysis, system design, etc. Another aim is to cultivate students' ability to analyze and solve practical problems with the theory and method of system analysis. The teaching of all the contents should be combined with practice to enhance the purpose, pertinence and comprehensiveness of students' mastery of knowledge.

2.Calendar

Teaching Content	Teaching Hours	
	Teaching	Experiment
Chapter 1: Systems, Roles and Development Methods 1.1The Necessity of System Analysis and Design 1.2 The Role of a System Analyst 1.3 System Development Life 1.4 Agile Methods 1.5 Object-oriented System Analysis and	4 Class Hours	

Design

1.6 Choose which System Development Method to Use

Chapter 2: Understand the Modeling of Organizational Systems and Organizational Systems — 4 Class Hours

2.1 Organization as a System

2.2 The Graphical Description Method of the System

2.3 Use Case Modeling

2.4 Management Level

2.5 Organizational Culture

Chapter 3: Project Management — Self-taught

3.1 The Project Starts

3.2 Determine the Feasibility

3.3Determine Hardware and Software Requirements

3.4Identification, Prediction and Comparison of Cost and Benefit

3.5 Time and Activity Management

3.6 Project Schedule

3.7 Project Control

Chapter 4: Information Collection: Interactive Methods — 2 Class Hours

4.1 Interview

4.2 Listen to the Story

4.3 Joint Application Program Design

4.4 Using Questionnaires

Chapter 5: Information Collection: Non-disturbing methods — Self-taught

5.1 Sampling

5.2 Investigation

5.3 Observe the Behavior of Decision Makers

5.4 Observe the Physical Environment

Chapter 6: Agile Modeling and Prototyping Methods — Self-taught

6.1 Archetype Method

6.2 Prototype Development

6.3 Agile Modeling

6.4Comparison of Agile Modeling with Structured Methods

Chapter 7: Uses a Data Flow Diagram 4 Class Hours

7.1Data Flow Method For Requirement Determination

7.2 Develop a Data Flow Diagram

7.3Logical and Physical Data Flow Diagrams

7.4 An Instance of a Data Flow Chart

Chapter 8: Uses a Data Dictionary Analysis System Self-taught

8.1 The Data Dictionary

8.2 The Data Repository

8.3 Create a Data Dictionary

8.4 Use a Data Dictionary

Chapter 9: Process Specification and Structured Decision-making 4 Class Hours

9.1 Overview of Process Specification

9.2 Structured English

9.3 Decision Tables

9.4 Decision Tree

9.5 Choose a Structured Decision Analysis Technique

Chapter 10: UML-based Object-oriented System Analysis and Design 6 Class Hours

10.1 Object-oriented Concepts

10.2 CRC Cards and Object Thinking

10.3 Concepts and Diagrams of a Unified Modeling Language

10.4 Use Case Modeling

10.5 Activity Diagram

10.6Sequential and Communication Diagrams

10.7 Class Diagram

10.8 Enhance the Sequence Diagram

10.9 Enhanced Class Diagrams

10.10 Status Map

10.11Packages and Other UML Products

10.12 UML Practice

Chapter 11: Design a Valid Output Self-taught

11.1 Target of the Output Design

11.2 Link the Output to How it is Output

11.3Recognize the Impact of Output Deviations on Users

11.4 Design Screen Output

11.5 Design the Website

Chapter 12: Design Valid Inputs Self-taught

12.1 Good Form Design

12.2 Good Screen and Web Form Design

12.3 Website Design

Total Class Hours 24

3.Grading Policy

Examination.

4.Textbooks and References

Textbook:

[1]Kenneth E. Kendall, Julie E.Kendall, “System Analysis and Design” Machinery Industry Press, 2014.

References：

[1]Jeffrey L.Whitten, “Introduction to System Analysis and Design”, Machinery Industry Press, 2012.

[2]John W.Satzsinger, Robert B.Jackson, “System Analysis and Design”, Machinery Industry Press, 2017.

天津職業技術師範大學
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Syllabus for Graduate Course

Course Name： E-commerce Management

Course Code： 08212019 **Course Type：** Professional Degree Course

Total Teaching Hours： 24 **Experimental Unites：**

Prerequisite Course： Managerial Economics

Designed for： Management Science and Engineering

Instructor： Professor Lili Qi **Contact Number：** 13502133409

Prepare Date: 2020.2.20 **Credits：** 2

1.Teaching Objectives

Through the study of this course, students are able to achieve the following goals:

(1)To understand the characteristics, significance and main development history of e-commerce technology;

(2)To understand the major components of e-commerce business models, and understand the basic business principles and corporate strategies applicable to e-commerce;

(3)To understand the key technical principles of e-commerce, understand the structure of the Internet, the working principle of the World Wide Web, master the characteristics and services of the Internet to support e-commerce activities;

(4)To understand the main considerations when choosing Web server and e-commerce server software, and understand the main considerations when developing mobile websites and mobile apps;

(5)To understand the key security issues in the e-commerce environment, and correctly evaluate the importance of various security policies, procedures and laws in creating a safe environment;

(6)To understand the main characteristics of Internet users, the basic principles of consumer behavior and purchase decisions, understand and use the basic strategies and tools of e-commerce marketing;

(7)To understand the process of social marketing, the basic characteristics and key elements of mobile marketing;

(8)To understand the ethical, social and political issues caused by e-commerce, understand the basic concepts of privacy and information rights, and identify major public

safety and welfare issues caused by e-commerce;

(9)To understand the current operating environment of the electronic retail industry and the main characteristics of the online service industry;

(10)To understand the main trends and profit models of media and online content consumption, and understand the key factors affecting the online publishing industry and the entertainment industry;

(11)To understand the different types of social networking sites and online communities and their business models. Understand the main types of portal sites and their business models.

(12)To understand the evolution and development of B2B e-commerce and its potential benefits and adjustments. Understand the trends in supply chain management and collaborative commerce.

2.Calendar

Teaching Contents	Teaching Hours	
	Teaching	Experiment
Chapter 1: The revolution has just begun 1.1E-commerce: The revolution has just begun 1.2A brief history of e-commerce development 1.3Understanding e-commerce: an organic organization of three themes	2 Class Hours	
Chapter 2:Business Models and Concepts of E-commerce 2.1The business model of e-commerce 2.2The main business model of B2C e-commerce 2.3The main business model of B2B e-commerce 2.4How e-commerce is transforming business: strategy, structure and process	2 Class Hours	
Chapter 3:E-commerce Infrastructure: Internet, World Wide Web, and Mobile Platform 3.1The Internet: Technical Background 3.2Today's Internet 3.3Internet Infrastructure in the Future 3.4World Wide Web 3.5Internet and World Wide Web: Featured Services 3.6 Mobile app	2 Class Hours	
Chapter 4:Construct the e-commerce platform: Web	2 Class Hours	

site, mobile website and mobile APP 4.1Conceive e-commerce platform 4.2The establishment of e-commerce platform: systematic approach 4.3The selection of software 4.4The selection of hardware 4.5Other tools of e-commerce site 4.6The development of mobile websites and mobile applications	
Chapter 5:E-commerce Security and Payment System 5.1E-commerce security environment 5.2The security threats in e-commerce environment 5.3Technical solutions 5.4 Management decisions, business processes and public laws 5.5The payment system of E-commerce 5.6The process and payment of Electronic bill	2 Class Hours
Chapter 6:The marketing management of E-Commerce 6.1Online consumers: Internet users and consumer behavior 6.2The strategies and tools of E-commerce marketing 6.3 Internet Marketing Technology 6.4 Understand the costs and benefits of online marketing communication	2 Class Hours
Chapter 7: Social Marketing, Mobile Marketing and Localized Marketing 7.1Introduction to social marketing, mobile marketing and localized marketing 7.2 Social Marketing 7.3 Mobile Marketing 7.4Localized Marketing and Location Marketing	2 Class Hours
Chapter 8:Ethical, Social and Political Issues in E-commerce 8.1Understand the ethical, social and political	2 Class Hours

issues raised by e-commerce

8.2The right to privacy and information

8.3Intellectual Property

8.4Supervision

8.5Public safety and welfare

Chapter 9: Electronic Retail and Online Services 2 Class Hours

9.1Electronic Retail Industry

9.2Analysis of the viability of online companies

9.3E-commerce example: the business model of e-retail

9.4Service industry: traditional and online

9.5Online financial services

9.6Online travel services

9.7Online recruitment services

9.8Sharing economy companies

Chapter 10:Online Content and Media 2 Class Hours

10.1Online content services

10.2Online Publishing Industry

10.3Online Entertainment Industry

Chapter 11:Social Networks, Auction Sites and Portal Sites 2 Class Hours

11.1Social networks and online communities

11.2Online auction sites

11.3E-commerce portals

Chapter 12:B2B E-commerce: Supply Chain Management and Collaborative Commerce 2 Class Hours

12.1Overview of B2B e-commerce

12.2Purchasing Process and Supply Chain

12.3Trends in Supply Chain Management and Collaborative Business

12.4Online Trading Market

12.5Members' Private Network

Total Class Hours 24

3.Grading Policy

Rating criteria are as follows:

Usual Grades: 30 points, which consists of class performance, personal presentation, homework, attendance, etc.

Final Grades: 70 points, assigning big homework, writing course paper.

4.Textbooks and References

Textbook:

[1] Kenneth C. Lawton, et al., “E-commerce: Business, Technology, Society”, Tsinghua University Press, 2018.

Reference Materials:

[1] Gary P. Schneider, “E-commerce”, Machinery Industry Press, 2020.

[2] Lin Chuanli, He Yue, “E-commerce Management”, Tsinghua University Press, 2015.

[3] Ephrem Turban and David King, “E-commerce: Management and social networking perspective”, Renmin University of China Press, 2018.

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Tianjin University of Technology and Education

Syllabus for Graduate Course

Course Name：	Big Data Fundamentals		
Course Code：		**Course Type：**	Specialized Optional Course
Total Teaching Hours：	36	**Experimental Unites:**	
Prerequisite Course：	Professional courses		
Designed for：	Management Science and Engineering		
Instructor:	Zunqi Yang	**Contact Number：**	
Prepare Date:	2020	**Credits：**	2

1.Teaching Objectives

This course describes the status and role of big data in the current era from three aspects: the concept, method, and application of big data. The main content combines the current cloud computing and mobile commerce, as well as the integration and application of large amounts of data generated by social networking platforms in various fields. Using examples of methods and theories corroborating each other, students can realize the role played by big data resources ranging from daily life to corporate management, urban governance, and national governance.

Through a thorough understanding of theories and methods, student can refine real big data problems, and apply reasonable data mining methods and tools to complete the mining of existing data sets. The improvement and promotion of methods are the embodiment of innovation.

2.Calendar

Teaching Content	Teaching Hours	
	Teaching	Experiment
Chapter 1: Big Data Fundamentals	4 Class Hours	

1.1. The Era of Big Data
1.2. What is Big Data
1.3. Structure Type of Big Data
1.4. Application of Big Data
1.5 Case-Life and Service in the Era of Big Data
1.6 Chapter Summary
1.7 Exercises

Chapter 2: Big Data and Cloud Computing 2 Class Hours
2.1. Overview of Cloud Computing
2.2. Cloud Computing Technology
2.3. Cloud computing and Big Data
2.4 Case- Construction Framework of Smart City Based on Cloud Computing
2.5 Exercises

Chapter 3: Data Storage 4 Class Hours
3.1. Overview of Data Storage
3.2. MongoDB
3.3. Cloud Storage
3.4. Data Store
3.5 Case-Apple iCloud
3.6 Exercises

Chapter 4: Data Mining 4 Class Hours
4.1. Data Pre-processing
4.2 Concepts and Principles of Data Mining
4.3. The Content of Data Mining
4.4. Development Trend of Data Mining
4.5.Case-The Nongfu Spring Company Uses Big Data to Sell Mineral Water
4.6. Chapter Summary
4.7. Exercises

Chapter 5: Data Visualization 4 Class Hours
5.1. Main Types
5.2. Basic Model
5.3. Common Method
5.4. Evaluation and Improvement
5.5. Case-Global Order Marketing Analysis of Office Equipment Company

9.1. New Changes in the Travel Industry

9.2.New Breakthroughs in Tourism Brought by Big Data

9.3.Tourism Information Database

9.4.Data Mining-Enhancing Customer Partner Engagement

9.5 Data Decision and Big Data Marketing

9.6.Case-Dynamic Monitoring Platform of Tourist Flow in Shanxi Scenic Spot

9.7. Chapter Summary

9.8. Exercises

Chapter 10: The Impact of Big Data on the Financial Industry — 2 Class Hours

10.1. Big Data and Problems Generated by the Financial Industry under the Internet Reform

10.2.Big Data and Financial Innovation

10.3.Risk Management under Big Data Framework

10.4.The Application Prospect of Big Data in the Financial Industry

10.5.Case-HSBC's Multi-dimensional Analysis of Historical Data and Rapid Analysis of Abnormal Value

10.6. Chapter Summary

10.7. Exercises

Chapter 11: The Challenges of Big Data for Manufacturing Industry — 2 Class Hours

11.1. Enterprise Reform Issues of China's Manufacturing Industry under Big Data

11.2.The Measures of Manufacturing Industry to Deal with Enterprise Reform under Big Data

11.3.Future Development Prospects of Manufacturing Industry under Big Data

11.4.Case-The Rise of Qingdao Red Collar Group

11.5. Chapter Summary.

11.6. Exercises

Total Class Hours 36

3.Grading Policy

10% of final grades come from attendance, 10% of final grades come from homework, 10% of final grades come from project report and 70% of final grades come from final exam.

4.Textbooks and References

Textbook:

[1] ThomasEri, “Introduction to Big Data”, China Machine Press ,2018.

References：

[1]Russell Walker，“From Big Data to Big Profits: Success with Data and Analytics”，2015.

[2]Viktor Mayer-Schönberger write, Yangyan Sheng et al. Translate, “Big Date: Great Revolution of Live,Work and Think”, Zhejiang People's Publishing House, 2013.

[3] Raoxue Zhang，“Introduction to Big Data”, China Machine Press, 2019.

[4]Jun Wu, “Intelligence Times: Big Data and the Smart Revolution Redefine the Future”，CITIC Publishing Group, 2016.

[5]Wei Chen, “Principle and Method of Data Visualization”, Science Press，2008.

[6]Lemen Chao, “Theory and Practice of Data Science”, Tsinghua University Press, 2018.

[7]Thomas Erl, “Data Mining. Practical Machine Learning Tools and Techniques”, China Machine Press,2018.

天津職業技術師範大學
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Syllabus for Graduate Course

Course Name：	Advanced Management		
Course Code：		**Course Type：**	Professional Degree Course
Total Teaching Hours：	24	**Experimental Unites:**	
Prerequisite Course：	Principles of Management		
Designed for：	Management Science and Engineering		
Instructor:	Professor Lihua Zhao	**Contact Number：**	13820778546
Prepare Date:	2005.8.30	**Credits：**	2

1.Teaching Objectives

The study of this course will enable students to achieve the following objectives:

(1) To master the essence and concept of management.

(2)To master the strategies of management quality and ability improvement.

(3)To understand the effective ways of management communication and motivation.

(4)To understand risk control and crisis management.

2.Calendar

Teaching Content	Teaching Hours	
	Teaching	Experiment
Chapter 1: Management Thoughts and Management Philosophy 1.1. The Connotation of Management 1.2. The Nature of Management 1.3.The Historical Background of Management Activities 1.4. The case study of Team Management	4 Class Hours	
Chapter 2: Historical Evolution of Management Theory 2.1. Classical Management Theories	4 Class Hours	

2.2. Schools of Modern Management

2.3. Contemporary management theories

Chapter 3: Practice of Management Quality and Ability — 6 Class Hours

3.1. Situation assessment, Scientific decision

3.2. Positive Attitude, effective implementation

3.3. Efficient organization, excellent culture

3.4. Excellent Leadership, transform and innovation

Chapter 4: Managerial Communication and Effective Motivation — 4 Class Hours

4.1. Interpersonal Communication

4.2 Inter-organizational Communication

4.3. Listening and Interviewing

4.4. Conference communication

4.5. Effective Motivation

Chapter 5:Case Analysis of Management Communication — 2 Class Hours

Chapter 6: Risk Control and Crisis Management — 4 Class Hours

6.1. Risk Identification and Analysis

6.2 Risk Assessment and Control

6.3. Crisis Management

Total Class Hours 24

3.Grading Policy

20% of final grades come from homework and 80% of final grades come from final exam.

4.Textbooks and References

References：

[1]Sanduo Zhou, “Management—Principles and Methods”, Fudan University Press, 2014.

[2]Yongqing Xiong, “Management”, Hunan People's Publishing House, 2015.

[3]Yong Su, Dianjun Luo, “Management Communication”, Textbook for Master of Business Administration (MBA), Fudan University Press,1999.

[4]Yongqing Xiong, “Principles, Methods and Cases of Management”, Fudan University Press, 2012.

天津職業技術師範大學
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Syllabus for Graduate Course

Course Name:	Theory and Practice of Enterprise Strategic Management		
Course Code:		**Course Type:**	Necessary
Total Teaching Hours:	24	**Experimental Unites:**	
Prerequisite Course:	Principles of Management, Business Management		
Designed for:	Management Science and Engineering		
Instructor:	Zhipeng Zhang	**Contact Number:**	13516197433
Prepare Date:	2020.3.11	**Credits:**	2

1. Teaching Objectives

Through the study of this course, students can achieve the following goals:

(1)To understand the basic concepts, components and hierarchy of enterprise strategy; to understand the factors, contents, methods, strategic plan formulation, enterprise resources and enterprise capabilities required for enterprise internal and external environmental analysis;

(2)To grasp the concept, connotation and activity process of enterprise strategic management, to be familiar with the job functions of enterprise strategic managers, and to have a correct understanding of the theoretical research of enterprise strategic management and its practical enlightenment in Chinese enterprises;

(3)To master the methods and steps of establishing strategic plans, to master the judgment and analysis of the enterprise's core competence, and to learn to use the relevant methods of enterprise internal environmental analysis and analysis tools, such as the analysis of value chain;

(4)To master the confirmation method and process of enterprise vision, the meaning and characteristics of enterprise mission and strategic objectives, and to understand the main contents and significance of enterprise vision, mission and strategic objectives;

(5)To master the concepts, characteristics, types, pros and cons of stability strategy, growth strategy and defensive strategy, as well as the applicable conditions of these three types of overall strategies, and to master the general way of strategy combination;

(6)To deeply understand how to choose enterprise strategies, international business

strategies and modes, environments, conditions and characteristics, so as to select appropriate international business strategies for enterprises;

(7)To master the process and key points of enterprise strategy implementation, control and change.

2.Calendar

Teaching Contents	Teaching Hours	
	Teaching	Experiment
Chapter 1: Overview of Enterprise Strategic Management	2 Class Hours	
1.1 Enterprise Strategy		
1.2 Enterprise Strategic Management		
1.3Research and Implication on the Theory of Strategic Management		
Chapter 2: External Environmental Analysis of Enterprise	4 Class Hours	
2.1 Overview of External Environment		
2.2 Analysis of Macro Environment		
2.3 Analysis of Industry Environment		
2.4 Methods of External Environmental Analysis		
Chapter 3: Internal Environmental Analysis of Enterprise	2 Class Hours	
3.1 Resources and Capabilities of Enterprise		
3.2 Core Competence of Enterprise		
3.3 Methods of Internal Environmental Analysis		
Chapter 4: Vision, Mission and Strategic Objectives of Enterprise	2 Class Hours	
4.1 Vision of Enterprise		
4.2 Mission of Enterprise		
4.3 Strategic Objectives		
Chapter 5: Overall Strategy of Enterprise	2 Class Hours	
5.1 Stability Strategy		
5.2 Growth Strategy		
5.3 Defensive Strategy		
5.4 Strategic Combination and Choice		
Chapter 6: Competitive Strategy of Enterprise	2 Class Hours	
6.1 Fundamental Competitive Strategy		

6.2 Competitive Strategy under Different Industrial Organizations	
6.3 Competitive Strategy under Different Market Positions	
6.4 Co-opetition Strategy	
Chapter 7: International Operational Strategy of Enterprise	4 Class Hours
7.1 Overview of International Operational Strategy of Enterprise	
7.2 Entry Modes of International Market	
7.3 Strategic Type of International Operation	
7.4 Risk and Control of International Operation	
Chapter 8: Strategic Choice	2 Class Hours
8.1 Overview of Strategic Choice	
8.2 Methods of Strategic Choice	
Chapter 9: Strategy Implementation of Enterprise	2 Class Hours
9.1 Overview of Strategy Implementation of Enterprise	
9.2 Strategy Implementation and Organizational Structure	
9.3 Strategy Implementation and Leadership	
Summary and Final Examination	2 Class Hours
	Total Class Hours 24

3.Grading Policy

The final examination consists of daily performance and course paper. Daily performance includes attendances, homework and classroom performance, which accounts for 30% of the total. Course paper accounts for 70% of the total.

4.Textbooks and References

Textbook:

[1]Liu Hui Theory and Practice of Enterprise Strategic Management, Beijing University of Technology Press, Beijing, China, 2016.

References:

[1]Zhang Guoliang, Enterprise Strategic Management, Zhejiang University Press, Zhejiang, China, 2011.

[2]Wang Qianfeng, Xu Jing, Qiu Ling, 2015. Cases of Enterprise Strategic Management, Tsinghua University Press, Beijing, China.

[3]WeChat subscription: dalaosay.

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Syllabus for Graduate Course

Course Name：	Management Research Method Training		
Course Code：		**Course Type：**	Professional Practice Course
Total Teaching Hours：	16	**Experimental Unites:**	7
Prerequisite Course：	Management, Statistics		
Designed for：	Management Science and Engineering		
Instructor:	Associate Professor Xugao Qi	**Contact Number：**	18698055007
Prepare Date:	February 10, 2020	**Credits：**	1

1.Teaching Objectives

Through the study of this course, students can achieve the following goals:

(1)To understand the connotation and basic paradigm of scientific management research;

(2)To master the basic methods of management research and the basic ideas and processes of research design;

(3)To be able to use the basic theories and methods of management research to carry out research on issues in this professional field independently;

(4) to master the basic academic research norms, establish basic academic literacy and methodological foundation

2.Calendar

Teaching Content	Teaching Hours	
	Teaching	Experiment
Chapter 1: Management Research Process 1.1.The general process of management research 1.2. Ask research questions 1.3. Research design and type Practical discussion: what kind of problem is a research problem	1 Class Hours	1 Class Hours

Chapter 2: Empirical Research Design 2.1. The nature of empirical research 2.2. The role of research design in empirical research 2.3. Use the validity index to evaluate the quality of research conclusions 2.4. Variance control in empirical research Practice: Example of Empirical Research Analysis	1 Class Hours	1 Class Hours
Chapter 3: Case Study Method 3.1. The significance of the case study 3.2. The quality of the case study 3.3. Steps of the case study Practice: Example of study case analysis	1 Class Hours	1 Class Hours
Chapter 4: Literature Research Method 4.1. Literature retrieval method 4.2. How to read the literature 4.3. Writing a literature review Practice: Application of Document Management Software NoteExpress	1 Class Hours	1 Class Hours
Chapter 5: Questionnaire Survey Method 5.1. The design of the questionnaire 5.2. Issuance and collection of questionnaires Practice: design examples and practical operations of questionnaires	1 Class Hours	1 Class Hours
Chapter 6: Observation Method and Interview Method 6.1. Observation method and implementation 6.2. Interview Method and Implementation Practice: Case Analysis and Practice of Interview Method	1 Class Hours	1 Class Hours
Chapter 7: Experiment and Quasi-Experimental Design 7.1. The main types of experiments; 7.2. Commonly used experimental design; 7.3. Evaluation of the experimental method and its advantages and disadvantages; Practice: Case Analysis of Experimental	1 Class Hours	1 Class Hours

Method

Q&A	2 Class Hours	
	Total Class Hours	16

3. Grading Policy

This course is a practical course, focusing on the examination of students' learning process. Course assessment is a combination of usual grades and final homework. The management research method case analysis and summary report are submitted at the end of the term. The score accounts for 60% of the total score, and the usual score accounts for 40%, of which attendance accounts for 5%, classroom discussion performance accounts for 20%, and homework accounts for 15%.

4. Textbooks and References:

Textbook:

[1]Chen Xiaoping, Xu Shuying, Fan Jingli, “Empirical Methods of Organization and Management Research”, Peking University Press, 2010.

References:

[1]Li Huaizu, “Management Research Methodology”, Xi'an Jiaotong University Press, 2004.

[2]Liu Jun, “Management Research Methods: Principles and Applications”, Renmin University Press, 2019.

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Syllabus for Graduate Course

Course Name：	Application of Statistics Software		
Course Code：	08213007	**Course Type：**	
Total Teaching Hours：	2 Weeks	**Experimental Unites:**	
Prerequisite Course：	Probability and Mathematical Statistics		
Designed for：	Management Science and Engineering		
Instructor:	PhD Jing Li	**Contact Number：**	882-870-49
Prepare Date:	March 4, 2020	**Credits：**	1

1.Teaching Objectives

The broad objective of this course is to help students to be proficient in fundamental statistical knowledge and solve problems using strong analytical power provided by statistics software. This class also supports the following learning objectives:

(1) Understanding statistical data analysis process and commonly used statistics software;

(2) Mastering data preprocessing, descriptive statistical analysis and data distribution testing by SPSS statistics software;

(3)Mastering the differences between group analysis and statistical testing by SPSS statistics software;

(4) Mastering linear regression modeling and analysis by SPSS statistics software;

(5)Understanding classification clustering and K-means clustering analysis in depth by SPSS statistics software.

2.Calendar

Teaching Content	Teaching Hours	
	Teaching	Experiment
Chapter 1: Preparation for Statistical Analysis	3 Class Hours	
1.1 Introduction of SPSS Software		
1.2 SPSS Data File Creating		
1.3 Data Entering and Preprocessing		

1.4 Descriptive Statistical Analysis

1.5 Data Distribution Testing

Chapter 2: Differences Between Groups analysis 3 Class Hours

2.1 Independent-Samples t Test

2.2 Paired-Way t Test

2.3 One-Way ANOVA

Chapter 3: Association analysis 2 Class Hours

3.1 Categorical Variable Correlation

3.2 Scale Variable Correlation

Chapter 4: Linear Regression 5 Class Hours

4.1 Simple Linear Regression

4.2 Multiple Linear Regression

Chapter 5: Cluster analysis 3 Class Hours

5.1 Distance and Proximity

5.2 Hierarchical Cluster

5.3 K-means Cluster

Total Class Hours 16

3.Grading Policy

Grade=Class participation30%+Final Exams 70%.

4.Textbooks and References

Textbook：

[1] Du Zhimin, “Sampling Survey and SPSS Statistics”, Electronic Industry Press, 2010.

Reference:

[1]Zhang Wentong, “SPSS Statistics Advanced Tutorial”,Higher Education Press.2012.

[2]Zhang Wentong, “SPSS Statistics Basic Tutorial”,Higher Education Press.2011.

[3]Michael H. Kunter, “Applied Linear Regression Models”, McGraw-Hill/Irwin.2004.

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Syllabus for Graduate Course

Course Name：	Training of Scientific Research Paper Writing		
Course Code：		**Course Type：**	Practical course
Total Teaching Hours：	16	**Experimental Unites:**	0
Prerequisite Course：	None		
Designed for：	Management Science and Engineering		
Instructor:	Yuehong Guo	**Contact Number：**	13820773056
Prepare Date:	2020.3.10	**Credits：**	

1.Teaching Objectives

Through the study of this course, students can achieve the following goals:

(1)To improve scientific research ability, innovation consciousness and innovation ability;

(2)To master the basic skills of literature retrieval;

(3)To master the process of scientific research;

(4)To master the methods and steps of scientific research and paper writing;

(5)To improve the ability of scientific research organization and comprehensive application of professional knowledge, and to improve their comprehensive quality related to the specialty.

2.Calendar

Teaching content	Teaching Hours	
	Teaching	Experiment
Chapter 1: Scientific Research Methods 1.1 Academic Integrity and Norms 1.2 Research Ability and Ability Training 1.3 Basic Elements of Scientific Research 1.4Scientific Research Methods Driven by Hypothesis Driven	4 Class Hours	
Chapter 2: Paper Writing Training 2.1Scientific Research Paper Writing:	8 Class Hours	

Confusion and Coping

2.2Preparation before Scientific Research papers

2.3 Composition of Research Papers

Chapter 3: Submission and Publication of Academic papers 4 Class Hours

3.1 Affidavit of Submission

3.2 Preparation for Submission

3.3 Submission of Papers

3.4 Review of Papers

3.Grading Policy

The final examination is composed of usual results and final results. The usual results account for 20% and the final results account for 80%. The usual results are composed of attendance and classroom training. The final results are based on the submitted comprehensive homework.

4.Textbooks and References

Textbook:

[1]Self-made school information.

Reference:

[1]Huang Zuojun, “Document Retrieval and Scientific Papers writing”, China petrochemical press, 2013.