

**清华大学**

**2008-2009 学年度**

**春季学期本科全英文授课课程内容简介**

**Introduction to the Undergraduate Courses**

**Taught in English in Spring Semester of 2008-2009**

# Catalogue

## **School of Civil and Hydraulic Engineering**

Structural Mechanics I

Foundation Analysis and Evaluation

## **School of Mechanical Engineering**

Engineering Materials

MEMS Design

Road and Safety

Data Structures and Algorithms

Distribution Network Planning

## **School of Information Science and Technology**

Signals and Systems

Advanced Algorithms

Bases and Application of Digital Video

Control and Optimization techniques in IP Networks

Enterprise and Information System Modeling and analysis

Network Security Seminar

## **Department of Electrical Engineering**

Modern Control Systems

## **Department of Materials Science and Engineering**

Introduction to Metallic Functional Materials

## **School of Sciences**

Principles of Basic Physics

General Physics III.

Chemical Biology

Genetics

Biochemistry I

## **School of Economics and Development**

Seminar on Financial Frontiers

Foundation of Actuarial Science

Stochastic Process

Accounting Principles

Management Information Systems

Architecture of Computer Hardware and Systems Software

Introduction to Commercial Science

Applied Mathematical Statistics

Accounting Information System

Intermediate Macroeconomics

Expert Systems and Decision Support Systems

Production and Operation Management

Organizational Design and Human Resource Management Economics

Foundations for Financial Economics

Developmental Economics

Intermediate Financial Accounting II  
Business Case Analysis  
Practice of Global Business Management  
Business Communication  
Object-oriented analysis and design methods  
Java Programming  
Money and Banking  
Labor Economics  
Management Accounting I

**School of Humanities and Social Sciences**

From the Silver Screen: English Films Appreciation

**School of Journalism and Communication**

English for Journalism and Communication (2)-Listening and Speaking  
English for Journalism and Communication (4)-U.K Media Culture  
English for Journalism and Communication (7)- Practice of English Skills

## **The Undergraduate Courses Taught in English in the School of Civil and Hydraulic Engineering**

**【Course Number】** 20030134

**【Course Title】** 结构力学（I） Structural Mechanics I

**【Credits】** 4 **【Semester】** Spring

**【Instructor】** LI Quanwang

**【Brief Introduction】**

This course is intended to provide the student majoring in civil engineering skills of structural analysis at an elementary level. It mainly consists of structural geometric construction rules, computational methods for internal forces and deformation. The three major relations: equilibrium, deformation compatibility and stress-deformation conditions are used to study the behavior of structural components under various external loads. Emphasis is placed on the two major methods: the consistent displacement (force) method and the displacement method. The course serves as the basis for further exposure of structural theories to the student majoring in civil engineering.

**【Assessment】**

**【Course Number】** 30040362

**【Course Title】** 基础工程 Foundation Analysis and Evaluation

**【Credits】** 2 **【Semester】** Spring

**【Instructor】** CHENG Xiaohui

**【Brief Introduction】**

This course provides current state-of-art and state-of-practice methods in Foundation Engineering. This is accomplished by including a mix of practice, “how to”, latest suggested analysis/design methodology and current format of education domestically and internationally. Theoretical concepts and analytical methods are introduced for guidance but the application of a large amount of judgment which is based on “global” experience is also incorporated. The former is emphasized in this class with a series of computer-aided examples and homework, and the later is demonstrated with respect to the significantly geotechnical uncertainties on which “global” experience are grown out. Two types of foundation analysis are coped with as follows: (1) Slopes and Retaining Structures and (2) Shallow and Deep Foundations.

**【Assessment】**

## The Undergraduate Courses Taught in English in the School of Mechanical Engineering

**【Course Number】** 20120103

**【Course Title】** 工程材料 Engineering Materials

**【Credits】** 3 **【Semester】** Spring

**【Instructor】** WU Yunxin

**【Brief Introduction】**

The contents of this course cover three parts: (1) fundamentals, (2) structural materials, and (3) functional materials. In the first part, the fundamental aspects of materials science and engineering are introduced, i. e., interatomic bonding, crystalline and noncrystalline structures, crystallization and crystal defects, atomic diffusion, phase diagrams, and mechanical behaviors. In the second part, different kinds of structural materials such as metal alloys, ceramics and glasses, polymers, and composites are briefed according to their composition and microstructural characteristics, mechanical properties, and applications. In the third part, the functional materials that exhibit different physical properties (thermal, electrical, magnetic, and optical) are introduced, and their applications are briefed.

This course uses two English textbooks: (1) William F. Smith and Javad Hashemi, *Foundations of Materials Science and Engineering*, 4<sup>th</sup> Edition, McGraw-Hill, Inc., 2006; (2) William D. Callister, Jr., *Materials Science and Engineering: An Introduction*, 7<sup>th</sup> Edition (2007), 6<sup>th</sup> Edition (2003), John Wiley & Sons, Inc.

**【Assessment】** Homework+lab+discussion:30%; Project:10%; Final exam: 60%

**【Course Number】** 40130972

**【Course Title】** 微机电系统设计 MEMS Design

**【Credits】** 2 **【Semester】** Spring

**【Instructor】** Schomburg, DONG Ying

**【Brief Introduction】**

Principles and methods for designing typical structures like thin films, micro beams, micro conducts, and micro actuators. Designs for micro devices and systems such as micro valves, micro pumps, micro relays, micro filters, micro force transducers. Design assignments are required in addition to the theoretical study.

**【Assessment】** .

**【Course Number】** 00150011

**【Course Title】** 现代道路交通安全 Road and Safety

**【Credits】** 1 **【Semester】** Spring

**【Instructor】** ZHOU Qing

**【Brief Introduction】**

The professor will first give 3 to 4 lectures in the area of road safety, including vehicle crashworthiness and occupant protection, traffic accident data analysis, the principles of controlling traffic accidents and reducing fatalities. Then the students will select some topics of their interest, prepare and give presentation in class, followed by discussions with their classmates and the professor.

**【Assessment】** Evaluation will be based on performance at Freshman Seminars.

**【Course Number】** 30160143

**【Course Title】** 数据结构与算法 Data Structures and Algorithms

**【Credits】** 3 **【Semester】** Spring

**【Instructor】** GU Xueyong

**【Brief Introduction】**

Representing real-world problems using abstract data structures and procedural abstractions. Describe the relationships between data structures and the algorithms that perform transformation on the information content encoded in the respective data structures.

Describe the complexity of data structures and algorithms in terms of the storage space and algorithm execution time. Introduce the big O notation to students.

Illustrate common data structures including sets, queues, stacks, trees, and graphs. Introduction to sort and search. Illustrate algorithmic design techniques that include dynamic programming, greedy algorithms, divide and conquer, and backtracking. Describe algorithms and data structures in the context of discrete optimization problems.

Provide some examples to link the course with Industrial Engineering applications. Invite guest speakers from industry to explain why data structures and algorithms are relevant on an application level.

**【Assessment】** mid-term exam (30%) + final exam (30%) + individual assignment (40%).

**【Course Number】** 40160423

**【Course Title】** 物流网络系统规划 Distribution Network Planning

**【Credits】** 3 **【Semester】** Spring

**【Instructor】** CAI Linning

**【Brief Introduction】**

Distribution system planning is intended to provide students with insight into the design and operation management of distribution system in the enterprise. The course addresses a variety of issues regarding the basic concept, such as integration, postponement, transportation mode and the trade; mathematical model, such as location model, including the continuous and the discrete location model, transportation algorithm, Vehicle Routing Problem, storage allocation model; and the application of the above model on the real system.

**【Assessment】**

## The Undergraduate Courses Taught in English in the School of Information Science and Technology

**【Course Number】** 30230654

**【Course Title】** 信号与系统 Signals and Systems

**【Credits】** 4 **【Semester】** Spring

**【Instructor】** SONG Jian

**【Brief Introduction】**

This course covers the signal representation/analysis, especially how to represent the complex signals in simple format either in time or frequency domain. Based on that, it also covers how signals behave after passing through various linear, time-invariant systems. This course consists of following individual yet highly related sessions such as Introduction, time-domain analysis on the linear, time-invariant systems, signal representation in frequency domain (Fourier analysis/Fourier transform), Laplace Transform, Discrete time-domain signals, Z-Transform, Discrete/Fast Fourier transform, the state space analysis of the linear systems, and etc.

**【Assessment】**

**【Course Number】** 40240744

**【Course Title】** 高等算法 Advanced Algorithms

**【Credits】** 4 **【Semester】** Spring

**【Instructor】** Eladverbin

**【Brief Introduction】**

**【Assessment】**

**【Course Number】** 30250223

**【Course Title】** 数字视频基础与应用 Bases and Application of Digital Video

**【Credits】** 3 **【Semester】** Spring

**【Instructor】** DAI Qionghai

**【Brief Introduction】**

This course focuses on the digital video signal processing, systematically introducing its principles and techniques. The following topics are covered: basic methods of video signal analysis, sampling, modeling, and motion estimation of video signals, video coding, main problems of video communications, video coding standards, video retrieval, and protection of Intellectual Property as well as the prospective applications of digital TV and streaming media. Homework and experiments are assigned to enhance the understanding of this course. Finally, this course is evaluated mainly by homework and course project.

**【Assessment】** Individual assignment (45%) + experiment (20%) + project (35%)

**【Course Number】** 40250921

**【Course Title】** 互联网中的控制与优化 Control and Optimization Techniques in IP Networks

**【Credits】** 1 **【Semester】** Spring

**【Instructor】** YUAN Ruixi

**【Brief Introduction】**

IP networks are large scale complex systems where control and optimization must be applied to achieve desired objectives. This class will examine the control and optimization techniques widely used in the IP networks through concrete examples: Internet Routing, TCP flow control, and IP-QoS engineering. Students will review many original research papers, and are required to actively participate in class discussion. For the class project, students will formulate a control or optimization problem from issues facing the IP networks today.

**【Assessment】** Individual assignment (20%) + discussion (30%) + thesis/report (50%)

**【Course Number】** 40250942

**【Course Title】** 企业与信息系统建模分析 Enterprise and Information System Modeling and analysis

**【Credits】** 2 **【Semester】** Spring

**【Instructor】** LI Qing

**【Brief Introduction】**

Enterprise engineering and information system modeling and analysis techniques are introduced in this course. These techniques are basic methods of system design/realization, industrial engineering, management and IT consulting for graduated students from industrial engineering, management engineering, and information engineering department.

**【Assessment】** Thesis /report (60%) + individual assignment (20%) + discussion (20%)

**【Course Number】** 40250952

**【Course Title】** 网络安全研讨 Network Security Seminar

**【Credits】** 2 **【Semester】** Spring

**【Instructor】** LI Jun

**【Brief Introduction】**

This is a seminar course mainly for senior undergraduate students. It will start with an overview of network security academic research and industrial development, and followed with special topic introduction and discussion. Each special topic will be covered in two seminars, one by faculty and one by guest speaker mostly industry expert. Hands-on experiments will be assigned with real products taken home. The students are expected to gain overall knowledge and experience of network security concept, technology, and products.

**【Assessment】** Thesis / report (40%) + individual assignment (15%) + experiment (15%) + class discussion (30%)

## The Undergraduate Courses Taught in English in the Department of Electrical Engineering

**【Course Number】** 30220363

**【Course Title】** 自动控制原理 Modern Control Systems

**【Credits】** 3 **【Semester】** Spring

**【Instructor】** SHEN Chen

**【Brief Introduction】**

Upon completion students should understand the basic concepts in both classical and modern control theory: characteristics of a linear system, linearization, how to build up mathematical models for linear systems in different mathematical forms such as differential equations, transfer functions and state-space equations, be able to do system analysis (stability and performance assessment), master different tools for doing system analysis (classical time domain and frequency domain methods, state space methods), be able to do system synthesis based on different system description using appropriate tools; understand the differences between continuous and discrete-data control systems, effects of sampling rates and quantization, be able to analysis and synthesis a digital control system including stability and performance assessment using time- and frequency-domain methods, be able to design simple digital controllers either directly using discrete-date controller design methods or using continuous controller design method then converting it into a digital one.

**【Assessment】** Individual assignment (15%) + three times' class tests (15%) + final exam (70%)

## **The Undergraduate Courses Taught in English in the Department of Materials Science and Engineering**

**【Course Number】** 00350102

**【Course Title】** 金属功能材料导论 Introduction to Metallic Functional Materials

**【Credits】** 2 **【Semester】** Spring

**【Instructor】** AN Di

**【Brief Introduction】**

**【Assessment】**

## The Undergraduate Courses Taught in English in the School of Sciences

**【Course Number】** 10430845

**【Course Title】** 基础物理学原理 Principles of Basic Physics

**【Credits】** 5 **【Semester】** Spring

**【Instructor】** LOU Yuqing

**【Brief Introduction】**

**【Assessment】**

**【Course Number】** 10430774

**【Course Title】** 普通物理（3） General Physics III

**【Credits】** 4 **【Semester】** Spring

**【Instructor】** JIANG Shuo, GAO Hong

**【Brief Introduction】**

This course covers wave-particle duality, Bohr's atomic model, Schrodinger's equation and its explanation, uncertainty principle, structures of atoms, molecules, solids, nuclei and particles.

From the Maxwell equation in classical electro-magnetic theory, study the light as classical electro-magnetic wave. Focusing on the property and wave phenomena of the light, such as the interference, diffraction and polarization state, etc.

**【Assessment】** Quantum Physics takes 50 marks (assignment: 5 marks + exam: 45 marks-close book); The rest part is examined in the form of open book. In all, assignment covers 10% and exam covers 90% of the total marks.

**【Course Number】** 40440283

**【Course Title】** 化学生物学 Chemical Biology

**【Credits】** 3 **【Semester】** Spring

**【Instructor】** LIU Lei

**【Brief Introduction】**

**【Assessment】**

**【Course Number】** 30450303

**【Course Title】** 遗传学 Genetics

**【Credits】** 3 **【Semester】** Spring

**【Instructor】** ZHOU Bing

**【Brief Introduction】**

This course is designed to introduce genetic principles to students of biology major. It aims to cover comprehensively all fields of classical and modern genetics, but skips most topics that have been taught in biochemistry and microbiology.

**【Assessment】** Final exam (55-60%) + mid-term exam (30-35%) + tests (the rest). All are in written forms.

**【Course Number】** 30450203

**【Course Title】** 生物化学（1）Biochemistry I

**【Credits】** 3 **【Semester】** Spring

**【Instructor】** LIU Dong, LUO Yongzhang

**【Brief Introduction】**

The main purpose of this course is to teach the students the basic concepts in biochemistry, which includes the structures and functions of proteins, nucleic acids, carbohydrates, lipids and biomembranes. We will also put the emphasis on enzyme kinetics and molecular mechanisms of signal transduction of the cells.

Besides lectures, we will also discuss the problems and answer the questions to the students through the websites or one-to-one meeting. There are will be some homework assignments to students after each lecture. We will also recommend some original research articles for students to read to further raise their interests in biochemistry.

**【Assessment】** Exam

## The Undergraduate Courses Taught in English in the School of Economics and Management

**【Course Number】** 40510952

**【Course Title】** 金融前沿问题研讨课 Seminar on Financial Frontiers

**【Credits】** 2 **【Semester】** Spring

**【Instructor】** WANG Yintian

**【Brief Introduction】**

This course is designed as a seminar series and will be joint-developed by all the professors and the senior undergraduate students in Department of Finance. The presentations are required in English. After seven-semester learning, a comprehensive course is necessary to help the students improve their ability to do research and develop their professional skills in presentation. This course will provide such a platform that we hope every student can benefit from it. This course covers almost all the subfields in finance, including financial economics, corporate finance, asset pricing, financial engineering, international finance, financial institutions, fixed income securities, insurance and risk management, real estate finance, and etc.

**【Assessment】**

**【Course Number】** 40510713

**【Course Title】** 精算学基础 Foundation of Actuarial Science

**【Credits】** 3 **【Semester】** Spring

**【Instructor】** CHEN Bingzheng

**【Brief Introduction】**

This course covers individual future lifetime and its related functions, and pricing for individual life insurance and annuities. I will include some SOA past exam M problems as examples.

**【Assessment】** Homework (25%) +1<sup>st</sup> exam(35%, May 30)+2<sup>nd</sup> exam(40%, June 29)

**【Course Number】** 20510052

**【Course Title】** 随机过程 Stochastic Process

**【Credits】** 2 **【Semester】** Spring

**【Instructor】** ZHANG Lihong

**【Brief Introduction】**

Stochastic process is the mathematical subject which studies the statistical properties of the random phenomenon changing with time and/or other parameters, is also the theoretical foundation of stochastic model construction. Stochastic process has been widely applied to all areas in science and technology, and is one of the most important mathematical tools in economics and finance. The purpose of this course is supplying the mathematical foundation for undergraduate student to study the economic and financial issues.

**【Assessment】** Tests (10%~20%) + final exam (80%~90%) in the form of close book

**【Course Number】** 30510123

**【Course Title】** 会计学原理 Accounting Principles

**【Credits】** 3 **【Semester】** Spring

**【Instructor】** ZHANG Haiyan, XUE Jian

**【Brief Introduction】**

This course mainly addresses the international convention about financial accounting. It covers (1)the relationship among corporate governance, business ethics and accounting, (2)the basic concepts and principles of accounting, (3)the basic procedure and methods of accounting (accounting cycle),(4)the preparation of balance sheet and its major items (including cash, receivables, inventory, fixed assets, intangible assets, current liabilities, long-term liabilities and owners' equity),(5)the preparation of income statement and its main content,(6)the preparation of statement of cash flow and its main content,(7) the fundamental analysis of financial statements.

**【Assessment】** Final exam (65%) + assignment & tests (30%) + attendance (5%)

**【Course Number】** 30510202

**【Course Title】** 管理信息系统 Management Information Systems

**【Credits】** 2 **【Semester】** Spring

**【Instructor】** CHEN Guoqing

**【Brief Introduction】**

In the context of rapid advances in information technology (IT) and Internet applications, the course covers a series of related materials as follows: (1) Jobs and respective abilities in information systems and management; (2) Gaining competitive advantage with IT (e.g., supply chain management and ERP, customer relationship management, business intelligence); (3) Organizing and use of information (e.g., conceptual descriptions, ties within information, data integrity); (4) Discovering knowledge for decisions (e.g., knowledge types, data mining tools, association rules); (5) Information analysis for management decisions (e.g., optimal decisions, alternatives, scenarios); (6) Information systems development cycle and business descriptions; (7) IT management (e.g., roles of CIO, outsourcing, business continuity); (8) Emerging fields (e.g., information goods, e-commerce).

The content of the course also includes case discussions (e.g., Digital China, CSC and General Dynamics), lab studies (e.g., SAP ERP, BO, EMC), business practices (e.g., invited speakers), etc.

**【Assessment】** Assignment (45%) + final exam (45%) + participation (10%)

**【Course Number】** 30510904

**【Course Title】** 计算机系统原理 Architecture of Computer Hardware and Systems Software

**【Credits】** 4 **【Semester】** Spring

**【Instructor】** GUO Xunhua

**【Brief Introduction】**

This course provides the hardware and software technology background to enable systems development and management personnel to understand tradeoffs in computer architecture for effective use in a business environment. Topics in the hardware part cover CPU architecture, memory structure, storage and other peripheral devices. The software part covers the basic characteristics and market statuses of main-stream operating systems such as windows, UNIX, and Linux, as well as five major functional modules of modern operating systems. A systematic view of computer systems will be utilized in identification of computer system components.

**【Assessment】** Individual assignment/experiment (40%) + class participation (10%) + final exam (50%)

**【Course Number】** 30510532

**【Course Title】** 商学导论 Introduction to Commercial Science

**【Credits】** 2 **【Semester】** Spring

**【Instructor】** Elaine CHAN

**【Brief Introduction】**

The course takes place over four weeks, integrating Organizational Behaviour, Marketing, Operations, and Corporate Strategy for problem-solving and business decision-making. The course is taught using the case method to present real decisions and issues that managers confront every day. This is not a traditional classroom experience in which the instructor dispenses knowledge using a lecture to students. Students learn about how to analyze business problems, make decisions, and defend those positions by actively participating in the classroom. Guided by experienced facilitators, students integrate and analyze information and arguments, assess possible courses of action, and make and defend decisions with limited information. Cases from past years have covered a diverse set of industries and firms including retail, consumer electronics, banking, biotechnology, and manufacturing. The course is taught by recent MBA graduates of the Richard Ivey School of Business with managerial experience in marketing, automotive manufacturing, management consulting, and finance. The Richard Ivey School of Business is part of the University of Western Ontario and is located in London, Ontario, Canada.

**【Assessment】** Class participation (50%) + small team presentation (10%) + team case brief hand-in (10%) + case competition team presentation (30%)

**【Course Number】** 30510583

**【Course Title】** 应用数理统计 Applied Mathematical Statistics

**【Credits】** 3 **【Semester】** Spring

**【Instructor】** LI Bo

**【Brief Introduction】**

We shall introduce the basic principles and methods of modern statistics, and discuss the application of statistics in economics, business and other fields. Some major topics are review of probability theory, survey/sampling, point (interval) estimation, hypothesis testing, Bayes inference, and the statistical inference in some popular statistical models, such as linear/logistic regression model and ANOVA model. We will use R/Splus as our main statistical software.

**【Assessment】** Assignment & case analysis report (20%) + mid-term exam (20%) + final exam (50%) + class participation (5%)

**【Course Number】** 30510643

**【Course Title】** 会计信息系统 Accounting Information System

**【Credits】** 3 **【Semester】** Spring

**【Instructor】** WEN Zhong

**【Brief Introduction】**

Application of information systems (IS) has become the necessary weapon for enterprises to improve business processes, enhance management effect, innovate business models and build up core competitiveness. Also, IS application brings huge challenge to every aspects of business organizations. Accounting is generally concerned with the identification, collection, processing, analysis and

communication of economic information about an organization. Accounting information systems (AIS) is the important part of IS. Accounting departments and accounting professionals are facing the big opportunity and challenge of contemporary IS application.

This course introduces the main content of AIS from the technical and managerial points of view. It consists of 4 parts. Part 1 introduces AIS concepts and tools, including introduction to AIS, business processes and AIS data, documenting AIS, and identifying risks and controls in business processes. Part 2 introduces the components of AIS, including database management methods and software systems, design of accounting data, queries & reports, and forms. Part 3 introduces fundamental business processes combined with utilization of an AIS software system, including the purchase/payment cycle, sale/reception cycle and financial cycle, etc. Part 4 covers two special topics on IS application. One is about IS application and evolution in enterprises, the other is managing and controlling IS.

【Assessment】 Assignment 1: 5; Assignment 2: 5; Assignment 3 : 5; Assignment 4: 10; Assignment 5: 10; Final Assessment: 55; Classroom participation: 10 ; Total : 100

**【Course Number】 30510763**

【Course Title】 中级宏观经济学 Intermediate Macroeconomics

【Credits】 3 【Semester】 Spring

【Instructor】 BAI Chongen, WU Binzhen

**【Brief Introduction】**

We will study the economic issues within a unified framework as possible as we can. At the same time, we will also try to introduce alternative theories and models. The main purpose is to introduce the method to study macroeconomics, not the facts and the theories. We emphasize the micro-foundation, and use the neoclassical economics as the benchmark. Nevertheless, we also introduce the Keynesian economics by introducing some market imperfections such as sticky wage and search in labor market.

We will start with the basic facts and issues in macroeconomics. Then we will introduce the modern approach to address these issues. We will study how different markets work together in general equilibrium. Markets for labor, saving and investment, and financial assets interact to determine the economy's long-run growth and its fluctuations.

【Assessment】 Assignment (10%) + mid-term exam (40%) + final exam (50%)

**【Course Number】 30510782**

【Course Title】 专家系统与决策支持系统 Expert Systems and Decision Support Systems

【Credits】 2 【Semester】 Spring

【Instructor】 HUANG Jinghua

**【Brief Introduction】**

This course is an introduction to expert systems and decision support systems, which is an integral part of the computer science curriculum. In this course, we learn how theory and applications complement each other. Both theory and application are presented. Students are provided with the Prolog, Lisp, CLIPS language that they can use to develop systems. By integrating theory with a fully functional means of applying that theory to real-world situations, students will gain an appreciation for the role played by expert systems and decision support systems in today's world.

The content of the course includes four parts with 12 chapters: 1) Overview of AI, ES and DSS; 2) Knowledge expression and inference; 3) Reasoning under uncertainty; 4) Design and development of ES with

Clips language.

【Assessment】 Attendance (5%) + 5 minutes presentation (5%) + individual assignment (20%) + final exam (close-book, 70%)

【Course Number】 40510223

【Course Title】 生产与运作管理 Production and Operation Management

【Credits】 3 【Semester】 Spring

【Instructor】 HUANG Shuo

【Brief Introduction】

From an organizational perspective, operations management may be defined as the management of the direct resources that are required to produce and deliver an organization's goods and services. The day-to-day activities within the operations management function focus on adding value for the organization through its transformation process. The main contents of operations management can be divided into four parts: 1) Operations strategy and the firm's competitiveness, including the competitive priorities, the relationship between operations strategy and the firm's competitiveness, operations processes selection, etc. 2) Design of the operations system, such as new product and service development, capacity decision, facility location and layout, job design, etc. 3) Operations planning, organizing and control, including forecasting, operations planning, inventory control, MRP and JIT, supply chain management, etc. 4) The improvements of operations system, including quality control and improvements.

【Assessment】 Attendance & class performance (10%) + individual assignment (20%) + group report (10%) + final exam (60%)

【Course Number】 40510652

【Course Title】 组织设计与人力资源经济学 Organizational Design and Human Resource Management Economics

【Credits】 2 【Semester】 Spring

【Instructor】 WANG Yijiang

【Brief Introduction】

This course focuses on economic principles of internal labor market and organizational design. The topics it covers include the boundary of the firm, the allocation of ownership in the organization, wage determination, screening of job candidates, principal agent relationship, human capital investment and its impact on employment stability, job design, hierarchy, bargaining theory, etc. International comparative context is considered in the study of the theoretic topics.

【Assessment】 (1) Class participation and contribution, 20%, individual-based. (2) Final Assessment, 40%, individual-based. (3) A short essay, 40%, group-based.

【Course Number】 40510734

【Course Title】 金融经济学导论 Foundations for Financial Economics

【Credits】 4 【Semester】 Spring

【Instructor】 ZHANG Lihong

【Brief Introduction】

This course will provide an introduction to topics in financial economics and equip students with a thorough understanding of the interplay between basic concepts of economics and finance. This course covers the following topics: expected utility theory, stochastic dominance, mutual fund separation, portfolio frontiers, capital asset pricing model, arbitrage pricing theory, Arrow-Debreu economics, consumption and portfolio decisions, spanning, options, rational expectations, discrete time single-period and multi-period consumption pricing model, discrete time single-period and multi-period arbitrageur pricing model. The topic of asymmetric information theory is optional depending on the process of class. This course is primary for graduate students in finance and economics.

**【Assessment】** Class tests (10%-20%) + final exam (80%-90%) (close book)

**【Course Number】** 30510863

**【Course Title】** 发展经济学 Developmental Economics

**【Credits】** 3 **【Semester】** Spring

**【Instructor】** LI Hongbin

**【Brief Introduction】**

1. Introduction: What is development; Development indicators; State of the world in terms of development.
2. Growth theories: introduce several classical growth theories.
3. Poverty and inequality: introduce the concepts and measurements; discuss the relationship between poverty/inequality and economic development.
4. Population and development: micro theories of fertility models; macro population models; empirical evidence.
5. Education: the level of education; return to education.
6. Migration and employment: migration is a very important phenomenon during economic development; associated with it is urban unemployment; we will describe these issues as well as related policies.
7. Agriculture and rural development.
8. Sustainable development and the environment: introduce the theory of public good and externality, and apply these theories in environmental issues.
9. Finance and insurance in developing countries: explain why markets for finance and insurance may fail and discuss mechanism that could help to fix these problems.
10. International perspectives: how trade and international finance affect development.
11. Political economy of development: explain how politics affects development and growth.
12. Economic transition: a special development process to a group of countries.

**【Assessment】** Final exam (50%) + assignment (10%) + presentation (15%) + thesis (25%)

**【Course Number】** 40510333

**【Course Title】** 中级财务会计 (2) Intermediate Financial Accounting II

**【Credits】** 3 **【Semester】** Spring

**【Instructor】** WANG Kun

**【Brief Introduction】**

Based on the Intermediate Accounting (1), this course covers detail problems related to liabilities, shareholders' equities, investment and revenue recognition. Meanwhile, this course introduces briefly the income tax, pension and lease problems and accounting treatments on them.

**【Assessment】** Assignment (10%) + project (group work, 20%) + mid-term exam (30%) + final exam (40%)

**【Course Number】 40511012**

**【Course Title】 商务案例分析 Business Case Analysis**

**【Credits】 2 【Semester】 Spring**

**【Instructor】 JIAO Jie**

**【Brief Introduction】**

Based on the fundamental economic and management knowledge, this course trains the students to analyze business cases and presentation. Course objectives includes: (1) to improve the sophisticated analyzing skills of business cases, including strategic analysis, market and supply chain analysis and financial statement analysis; (2) to improve the presentation skills and summarize the business analysis results; (3) to further improve communication in English. The students have opportunity to attend international case analysis competitions based on their class performance.

**【Assessment】**

**【Course Number】 40511022**

**【Course Title】 全球化商务管理实践 Practice of Global Business Management**

**【Credits】 2 【Semester】 Spring**

**【Instructor】 SHI Yongheng**

**【Brief Introduction】**

**【Assessment】**

**【Course Number】 30510912**

**【Course Title】 商务沟通 Business Communication**

**【Credits】 2 【Semester】 Spring**

**【Instructor】 Nancy Han**

**【Brief Introduction】**

Business Communication (taught in English) is a course training students to be able to deliver a presentation and submit a written proposal efficiently as well as effectively in a business context. The training is very important for students who aim to succeed in the business world. Followings are the course outline that helps students interested in this course to have a specific idea about the course requirement so to complete this course successfully. The course is delivered in English with many training activities which eventually get students to be an efficient business presenter in English. It helps the learner aware of the communication goals and therefore able to apply the principles to create an efficient and effective business presentation. It also helps the learner apply the communication principles to written formats since the written proposals are evaluated as part of the final performance. It requires the learner to be a team member to make the presentation successful, for being able to work with a team is an important element for a manager's future leadership. Finally, being able to listen to peer's presentations and providing feedback are important tasks in the course as well.

**【Assessment】**

- Language quiz	10%
- Mid-term presentation	20%
● delivery	10%
● power point	5%
● written report	5%
- Final presentation	50%
● delivery	20%
● power point	10%
● written report	20%
- Class participation	20%

**【Course Number】** 40510872

**【Course Title】** 面向对象的分析设计方法 Object-oriented analysis and design methods

**【Credits】** 2 **【Semester】** Spring

**【Instructor】** ZHU Tao

**【Brief Introduction】**

This course introduces the object-oriented (OO) analysis and design methods for information systems (IS) development. The unified modeling language (UML) and relevant IS development processes under the OO paradigm are discussed in detail. The main course contents are the discussion of basic IS development workflows under the OO paradigm, including requirement workflow, analysis workflow, design workflow, and implementation workflow. With the illustration of examples and exercises, the development tools and techniques used in such different workflows, including use case descriptions, UML diagrams, robustness analysis, class-responsibility-collaborator (CRC) card modeling, design patterns, coding and testing skills, etc., are demonstrated clearly so that the students could learn how to use them.

**【Assessment】** Assignment 1 (15%) + assignment 2 (15%) + assignment 3 (20%) + assignment 4 (40%) + class attendance (10%)

**【Course Number】** 30510942

**【Course Title】** Java 程序设计 Java Programming

**【Credits】** 2 **【Semester】** Spring

**【Instructor】** ZHU Tao

**【Brief Introduction】**

This course discusses the object-oriented (OO) programming with Java after students have learned some programming experience using a certain procedural language. This course discusses in detail about the basic OO programming concepts (e.g. encapsulation, inheritance and polymorphism) and fundamental skills about how to program using the mainstream OO language – Java. This course requires students to pay both heed to abstract concepts as well as hard techniques related to OO programming. The objective is to help students master the principles and skills used in OO programming with Java.

**【Assessment】**

**【Course Number】 30510523**

**【Course Title】 货币银行学 Money and Banking**

**【Credits】 3 【Semester】 Spring**

**【Instructor】 LIU Qing**

**【Brief Introduction】**

**【Assessment】**

**【Course Number】 40510973**

**【Course Title】 劳动经济学 Labor Economics**

**【Credits】 3 【Semester】 Spring**

**【Instructor】 LIN Xu**

**【Brief Introduction】**

This course studies the mechanism of labor markets. It covers the traditional topics in labor economics, which include the theories of labor demand and supply (both static and dynamic), labor market equilibrium, compensating differentials, human capital investments and returns, wage determination and structure, migration, gender and race discrimination, inequality, unionization, efficiency wages and work incentive scheme, and unemployment. It deals with the impacts of wages, prices, profits, working conditions, government policies and the like on the decision makings of firms and workers.

**【Assessment】**

**【Course Number】 40510343**

**【Course Title】 管理会计(1) Management Accounting I**

**【Credits】 3 【Semester】 Spring**

**【Instructor】 ZHANG Haiyan**

**【Brief Introduction】**

The goal of management accounting is to provide relevant information for top executives' decision, management accounting includes decision related cost measurement, pricing strategy, organization design, budgeting management and performance evaluation. This course will introduce concepts, methods and techniques related to management accounting. Topics can be summarized as the following three areas: (1) fundamental concepts and methods, including cost concept and classification, cost measurement, cost behavior and CVP analysis; (2) fundamental decision process, including marketing decision and production decision; (3) the specific decisions, including standard costing, static budgeting, flexible budgeting, organization design, transferring price, and performance evaluation etc. Based on the trends of modern management accounting, this course will also focus on activity-based costing (ABC), balanced scorecard (BSC), total quality management (TQM) and some other newly developed techniques in this area.

The objective of this course is to enable you to do the following:

1. Understand basic costing concepts, cost measurement methods and system;
2. Under the basic process of decision making in modernized enterprises;
3. Hold a whole picture of budgeting management and performance evaluation;
4. Can solve some management accounting problems in the real world.

The approaches of the course include literature reading, lecture, case analysis and discussion,

homework, group report and presentation.

**【Assessment】** Quizzes (30%) + case report (20%) + final exam (40%) + assignment (5%) + class performance (5%)

## **The Undergraduate Courses Taught in English in the School of Humanities and Social Sciences**

**【Course Number】** 00640312

**【Course Title】** 影视欣赏 From the Silver Screen: English Films Appreciation

**【Credits】** 2 **【Semester】** Spring

**【Instructor】** ZHAO Yingnan

**【Brief Introduction】**

Welcome to Screen English. This intermediate level course is designed to enhance students' knowledge of English and English-speaking culture through films in a variety of genres that were made over the past fifty years. In this course, we will spend the majority of time focusing on different genres of films, their stars, and more importantly, their setting and stories. Class activities will be centered on watching these films, instructor led presentation, small and large group discussion, viewing comprehension activities, and student writing. Course grades will be determined based on midterm and final tests, class

**【Assessment】**

## The Undergraduate Courses Taught in English in the School of Journalism and Communications

**【Course Number】** 30670231

**【Course Title】** 专业阶梯英语(2)- 口译与听说 English for Journalism and Communication (2)-Listening and Speaking

**【Credits】** 1 **【Semester】** Spring

**【Instructor】** DONG Guanpeng

**【Brief Introduction】**

This course is providing students the unique venue to study interpretation skills while improving listening comprehension abilities in the field of journalism and media studies. Course textbook is produced by faculty according to experiences and student feedbacks during the previous years of teaching. Vocabulary for current affairs and crucial domestic and international issues are dedicatedly collected for teaching and learning. The course aims to maintain its minimum requirement no lower than foreign language studies departments. Both of Chinese and international faculty members will jointly deliver the lectures as well as supervising seminars.

**【Assessment】**

**【Course Number】** 30670301

**【Course Title】** 专业阶梯英语(4) - 英国媒体文化 English for Journalism and Communication (4)- U.K Media Culture

**【Credits】** 1 **【Semester】** Spring

**【Instructor】** HANG Min

**【Brief Introduction】**

English Media Culture is a course targeting to third-year students of journalism major. It has 1 credit and 16 classroom-hours. The objective of the course is to introduce the British media, their characteristics, how they influence the British society and how they form the unique British media culture.

**【Assessment】** Exam (30%) + attendance (20%) + assignment (50%)

**【Course Number】** 30670431

**【Course Title】** 专业阶梯英语(7) - 新闻传播英语技能训练 English for Journalism and Communication (7)- Practice of English Skills

**【Credits】** 1 **【Semester】** Spring

**【Instructor】** Bill Valentino

**【Brief Introduction】**

Public relations advanced course is based on last semester's "public relations". This semester, it focuses more on practical training of making a PR plan, writing press releases, establishing good reputation for a company or an organization and identifying stakeholders of a company or an organization. Public relations advanced course is based on last semester's "public relations". This semester, it focuses more on practical training of making a PR plan, writing press releases, establishing good reputation for a company or an organization and identifying stakeholders of a company or an organization.

As a student in this course you can expect to learn advanced skills needed to work in PR departments.

However, with this course you should also gain a good understanding of the discipline. Hopefully, this course will help seniors with their future career as a media practitioner or in other field.

**【Assessment】**