

学年学期	课程号	课程名	学分	开课单位	Course Title*	Course Description
2019-2020学年秋	40350033	电子显微分析	3	材料学院	Electron Microscopy	The mechanical, physical and chemical properties of materials are determined by the microstructure, phase and composition of the materials。 Electron microscopy is used to know the microstructure, phase and composition of the materials in a small area by u
2018-2019学年春	00350102	金属功能材料导论	2	材料学院	Introduction to Metallic Functional Materials	This is an introductory level course aimed at giving a basic introduction to the key relationship between structure and properties in material science, and on a wider level to encourage students to think about the role of materials in modern society. The
2018-2019学年夏	10150022	科技英语实践	2	车辆与运载学院	Technical English Communication	The course trains the technical English communication skills through a series of simulated academic meetings. Student practice will take up most of the time, with the instructors setting the stage, guiding and motivating the students. To alleviate the iss
2019-2020学年秋	00460082	可持续科学	2	地球系统科学系	Sustainability Science	Sustainability science is science, technology, and innovation in support of sustainable development—meeting human needs, reducing hunger and poverty, while maintaining the life support systems of the planet. As such, it is an active pursuit of the scie
2018-2019学年春	30220434	电机学(英)	4	电机工程与应用电子技术系	Electric Machinery Fundamentals	Electric Machinery Fundamentals focuses on the basic electro-magnetic theory of electric machines. The course covers the fundamentals of transformers, synchronous machines, asynchronous machines and DC machines. This course is one of the key fundamental
2019-2020学年秋	30220363	自动控制原理(英)	3	电机工程与应用电子技术系	Modern Control Systems	This course provides the basic knowledge about classical control theory, modern control theory and discrete control theory. For classical control theory, the following contents will be introduced: system modeling, transfer function and its transformation
2018-2019学年春	30230654	信号与系统(英)	4	电子工程系	Signals and Systems(in English)	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-invaria
2018-2019学年春	30230742	概率论与随机过程(1)	2	电子工程系	Probability and Stochastic Processes (1)	This course covers the basic knowledge of elementary probability without rigorous treatment via measure theoretical tools. It includes probability spaces (sample spaces, sigma fields and probability), random variables with its probability distribution, di
2018-2019学年春	40230952	通信网络设计实例研究	2	电子工程系	Case Study on the Design of the Communication	This course starts from basics for narrowband and broadband PLC systems, network structure with its elements and PLC-specific performance problems for the PLC broadband systems. The characteristics of the PLC transmission medium are then presented includi
2018-2019学年夏	40661412	模拟法庭初级训练	2	法学院	Moot Court Training	The Summer Intensive Legal English Course aims to introduce first-year law students to the world of American advocacy. Both the lecturer and tutors will closely work together to help students learn about the American legal system, legal research, case rea
2019-2020学年秋	40661373	世界贸易组织法(英)	3	法学院	The Law of the World Trade Organization(in	Economic interdependence between countries and across production chains continue to grow. In this context, stable rules on international trade are key. This course focuses on the rules established under the World Trade Organization (WTO) as well as select
2019-2020学年秋	40661493	法律推理	3	法学院	Legal Reasoning	The Legal Reasoning Course will teach students to identify, predict, and apply legal rules and principles using legal reasoning and critical thinking skills found in common law systems in order to teach students “how to think like a lawyer.” The course w
2019-2020学年秋	40661512	比较公司治理(英)	2	法学院	Comparative Corporate Governance(in	This course is designed to familiarize students with company and securities laws and underlying policies in China, with an emphasis on the corporate governance structure of publicly-held companies. The course focuses on important governance issues such a
2018-2019学年夏	10320032	核领域专业英语及实践	2	工程物理系	Practical English in Nuclear Field	This is class emphasis on oral communication in english for engineering physics students. The class format is flexible, including lecture, discussion, and multimedia presentations on scientific topics. The final goal is to have each student be able to en
2019-2020学年秋	40160522	国际物流(英)	2	工业工程系	International Logistics(in	Discuss and study the issues related to international logistics, understand both the commonalities and differences between international and domestic logistics, and learn to apply these concepts in real world applications.

2018-2019学年春	20310474	材料力学 (英)	4	航天航空学院	Mechanics of Materials (in English)	Mechanics of Materials is a basic engineering subject that must be understood by anyone concerned with the strength and physical performance of structures. The subject matter includes such fundamental concepts as stresses and strains, deformations and dis
2018-2019学年春	40310873	燃烧学	3	航天航空学院	Combustion	Introduction to combustions processes and chemical kinetics. Mechanisms of formation of pollutants such as nitrogen oxides, carbon monoxide, soot and unburned hydrocarbons in stationary and vehicular power plants. Premixed and diffusion flame structure an
2018-2019学年夏	40310864	暑期强化课	4	航天航空学院	Summer Intensive Course	The course is offered for undergraduate students by the internationally renowned scholars in the summer. The course will focus on basic and frontier researches of mechanics and related areas. The course format is special
2019-2020学年秋	20310504	理论力学(英)	4	航天航空学院	Theoretical Mechanics(in English)	A review of vector algebra. Concept of force. Equilibrium of particles. Moments about points and lines, couples and equivalent force systems. Equilibrium of rigid bodies. Analysis of simple structures such as trusses, frames, and beams. Centroids, centers
2018-2019学年春	30050363	环境基因组学	3	环境学院	Environmental Genomics	This course aims to teach basic scientific knowledge and technologies in the field of environmental genomics and conduct experimental training. The major content include: basic knowledge about microbial genes; relationship between microbial genes and func
2018-2019学年春	40050622	饮用水水质安全保障工艺	2	环境学院	Treatment technologies for safe drinking water	The course is structured with a main line pertaining to drinking water qualities, and is mainly composed of the removal of individual impurities and contaminants by appropriate unit operations in the conventional treatment process and the advanced treatme
2018-2019学年春	40050712	海外交流学习	#	环境学院	Study Abroad Program	The undergraduate students in Global Environment Program of School of Environment, Tsinghua University are required to attend the Study Abroad Program during their junior year and complete at least four core courses.
2018-2019学年春	40050752	低碳技术与管理	2	环境学院	Low-carbon Technology and Management	The whole world is currently committed to adaptation against climate change, extreme disasters, environmental pollutions and exhausting fossil energy by means of establishment of a low-carbon society. Such transmission is certainly necessitated in China.
2018-2019学年夏	30050302	世界环境与文化体验 (英语强化课堂)	2	环境学院	World Environmental and Cultural Practice	This course is completely taught in English, which is designed to enhance the English practical ability of undergraduates, improve the understanding of the world environment and culture, and improve the ability of self-learning, active communication and p
2018-2019学年夏	30050321	国际组织和环境公约	1	环境学院	International Organization and Environmental	This is a five days intensive course on analysis of international organization and environmental conventions operation mechanism, basing on the work experience of the expert and the text of Basel, Rotterdam and Stockholm Conventions. The course covers th
2018-2019学年夏	40050762	国际环境法概论	2	环境学院	Introduction to International Environmental Law	This is a five days intensive course on international environmental law, using Beyerlin and Marauhn's work (International Environmental Law) as a textbook. The course covers the following major themes: History of international environmental law; source of
2019-2020学年秋	40050773	可持续型社会：环境、能源与行为	3	环境学院	Sustainability: Environment, Energy and Personal Choices	With the growing requirement on environmental resources for the development of human society, global environmental problems have become increasingly prominent. A sustainable society involves not only rethinking of personal choices and behaviors, but al
2018-2019学年春	20120293	工程材料(英)	3	机械工程系	Engineering Materials	This course combines the fundamental of engineering materials with their applications. By means of lectures, discussion, and lab exercises, the students are enabled to understand the relationships among the four elements of materials science and engineeri
2018-2019学年春	30120403	机械系统微机控制(英)	3	机械工程系	Micro-Computer Control for Mechanical System	This course combines software training with hardware training together, which makes it not only focuses on the practice research of typical parts of electromechanical control system but also help students to acquire knowledge. In a word, it is a both int
2019-2020学年秋	30120403	机械系统微机控制(英)	3	机械工程系	Micro-Computer Control for Mechanical System	This course combines software training with hardware training together, which makes it not only focuses on the practice research of typical parts of electromechanical control system but also help students to acquire knowledge. In a word, it is a both int
2018-2019学年春	30120324	设计与制造(1)	4	机械工程系	Design and Manufacturing (1)	This course focuses on cultivating the creativity of student for mechanical system and structure design. Design is the core, and analysis and calculation server the design. This course mainly introduces the engineering design method of mechanical system.

2019-2020学年秋	20120314	机械设计基础	4	机械工程系	Fundamentals of Mechanical Design	This course focuses on the common basic theory issues in the design of mechanical products. It mainly introduces the design of life of mechanical systems, the design of reliability and durability in imparting the knowledge of kinematics analysis and de
2018-2019学年春	01510213	全球创新战略	3	基础工业训练中心	Global Innovation Strategy	As information technology has evolved for decades, we have already embraced an era when the recombination of industries, information, talents has become common. In collaboration with universities and institutes from around the globe via iPodia Alliance.
2018-2019学年春	01510223	计算思维和系统设计基础	3	基础工业训练中心	Computational Thinking and Foundations and	This course lead students to create a full stack modern computing system from basic logic gates, and proceeds to build Memory, CPU, Assembly to Machine Language Translator, Virtual Machine, High level Language Compiler, an Operating System, and a small ap
2018-2019学年春	30240532	面向对象程序设计基础	2	计算机科学与技术系	Foundation of Object-Oriented Programming	This course introduces key Object-Oriented Programming (OOP) features and simple design patterns based on these OOP features. Using the design patterns based on OOP, this course trains students to design good software structures, which guarantee easy code
2018-2019学年夏	40240945	计算机科学与技术训练暑期学校	5	计算机科学与技术系	Computer Science Training Summer School	Theory, programming and applications of deep learning. Applications include voice, image, social network, knowledge graph, natural language processing and robotics. In addition, deep generative models and deep reinforcement learning are introduced.
2019-2020学年秋	40910222	国际比较视野下的可持续城镇化	2	建设管理系	Sustainable Urbanization in an International	This course offers students a comparative approach to investigating sustainable cities, focusing on urbanization in the world's two largest economies and biggest emitters of greenhouse gases: China and the United States. Using project-based learning appro
2018-2019学年夏	30000072	建环专业外语强化训练	2	建筑学院	English Summer Camp for Built Environment	To improve English level, especially for listening and speaking. To obtain some basic knowledge on the background of this major, and corresponding expression in English. To improve comprehensive ability, including teamwork, communication, speech and so on
2018-2019学年春	10470011	探究科学的写作	1	交叉信息研究院	Writing in the Sciences	This course educates students to become more effective writers as well as better story tellers. For the effective writing part, we will follow the course offered by Kristin Sainani at Stanford University, and discuss principles of good writing, tricks
2018-2019学年夏	20470062	代数与计算	2	交叉信息研究院	Algebra and Computation	Algebra has found deep and beautiful applications in computation theory. For example, group theory plays a critical role in Babai's recent breakthrough on graph isomorphism testing. As another example, several important results in algebraic circuit comp
2018-2019学年夏	30470232	信息物理	2	交叉信息研究院	The Physics of Information	The 21st Century has seen a string of profound discoveries that interface physics, information theory and computer science. This course will introduce undergraduate students this exciting frontier by connecting the various physics and computational ideas
2019-2020学年秋	20470073	人工智能入门	3	交叉信息研究院	Introduction to Artificial Intelligence	This course aims at providing freshmen students with a broad overview of the Artificial Intelligence field, including computer vision, robotics, reinforcement learning, AI systems, and AI algorithms, motivating them to study the field, and encouraging t
2018-2019学年春	20470024	普通物理（1）（英）	4	交叉信息研究院	General Physics(1)(in English)	General physics course for students majoring in science and engineering with interest in physics. This course is Calculus-based. Students are required to actively participate during the lectures. This class will provide with an opportunity to acquire a go
2018-2019学年春	20470054	抽象代数	4	交叉信息研究院	Abstract Algebra	Abstract algebra studies fundamental algebraic structures of groups, rings and fields, etc. It is the foundation of modern mathematics and has broad and vital applications across different disciplines including computer science, physics, and chemistry.
2018-2019学年春	30470023	计算机应用数学	3	交叉信息研究院	Mathematics for Computer Science	This course aims to introduce the fundamental mathematical techniques useful for computer science undergraduate majors, illustrated with a rich spectrum of applications. Modern computer science education requires the students to be equipped with broad kno
2018-2019学年春	30470084	操作系统	4	交叉信息研究院	Operating System	The purpose of this course is to teach the principles and design of modern operating systems and distributed systems, as well as system programming. Topics we will cover include concepts of operating systems, networking, database systems and svstems pro

2018-2019学年春	30470093	计算生物学	3	交叉信息研究院	Computational Biology	To introduce various computational problems for analyzing biological data (e.g. DNA, RNA, protein sequences, and biological networks) and the algorithms for solving these problems. Topics covered include: biological sequence analysis, gene identification.
2018-2019学年春	30470134	计算理论	4	交叉信息研究院	Theory of Computation	This course gives an introduction to the basics of computation theory, including: Mathematical Logic, Finite Automata, Context-Free Grammars, Turing machine, undecidability, and computational intractable topics (NP complete, PSPACE, BPP, interactive proof).
2018-2019学年春	30470154	博弈论	4	交叉信息研究院	Game Theory	Part One: Normal-form games Part Two: Extensive games Part Three: Bayesian games Part Four: Mechanism design
2018-2019学年春	30470223	计算机网络基础	3	交叉信息研究院	Introduction to Computer Networks	This course aims at giving a comprehensive introduction to the fundamentals of computer networks and network performance analysis. The course contains two parts. The first part covers various networking topics including network principles, Ethernet, WiFi.
2018-2019学年春	30470283	优化理论	3	交叉信息研究院	Introduction to Optimization Theory	As a basic part, this course first introduces the concept of linear programming with concrete examples, analyzes its geometrical properties, and elaborates the important duality theory. Then three important methods solving linear programming, the simplex
2018-2019学年春	40470262	自动驾驶	2	交叉信息研究院	Autonomous Driving	This course covers the design principles and implementation essentials of the various functional modules of an autonomous driving system: 1. Overview: architecture of autonomous driving system, and overview of the autonomous driving industry; 2. Hardware
2018-2019学年春	40470274	量化经济学	4	交叉信息研究院	Quantitative Economics	This course is designed to prepare the students with the computer science major the insight and knowledge for studying the frontier interdisciplinary problems involving economics and computer science. The booming of data analytics and AI technologies has
2018-2019学年春	40470284	量子计算机科学	4	交叉信息研究院	Quantum Computer Science	Quantum computer science is a course offered to undergraduate students with a solid preparation in linear algebra but no-prerequisite on quantum theory. The course will cover many topics at the forefront of the new field of quantum computer science, in
2018-2019学年夏	30470272	智慧城市的计算建模	2	交叉信息研究院	Computational Modeling for Urban System Regulation	This course aims at giving students a comprehensive introduction on how to use computational thinking to solve real world problems in the core urban system disciplines of power systems, energy sciences, environmental sciences, etc. We expect the students
2019-2020学年秋	20470034	普通物理（2）(英)	4	交叉信息研究院	General Physics(2)(in English)	This course is a follow-up course of General Physics I and for undergraduate students with serious interests in physics and interdisciplinary sciences. The main focus of this course is to cover the most important topics in classical electrodynamics includ
2019-2020学年秋	20470044	线性代数	4	交叉信息研究院	Linear Algebra	Linear algebra finds wide applications in various fields, such as computer sciences, physics, mathematics and their interdisciplinary fields. This course introduces the basic concepts and techniques of linear algebra. It includes the study of matrices
2019-2020学年秋	30470013	计算机入门	3	交叉信息研究院	Introduction to Computer Science	Designed to appeal to a diverse audience, this course examines some of the fundamental ideas of the science of computing. Lectures and hands-on assignments cover a wide variety of topics such as hardware organization, the Internet, computer programming, I
2019-2020学年秋	30470104	机器学习	4	交叉信息研究院	Machine learning	Machine learning studies how computers can learn from experiences. Combining ideas from theoretical computer science and statistics, researchers have developed many learning methods and their applications to computer vision, bioinformatics, natural language
2019-2020学年秋	30470124	算法设计	4	交叉信息研究院	Algorithm Design	This course gives an introduction to the basics of algorithm, common algorithm design techniques, and the analysis of running time (complexity). The main contents include: tools of algorithm analysis, divide and conquer algorithms, dynamic programming, gr

2019-2020学年秋	40470024	密码学基础	4	交叉信息研究院	Fundamentals of Cryptography	Modern cryptography aims to protect information privacy, integrity and authentication. In this course, we first review basis of discrete probability, algebra and classical cryptography. Then there are three sections remaining: (1) symmetric key encryption
2019-2020学年秋	40470104	网络科学	4	交叉信息研究院	Network Science	Network science is a new and emerging scientific discipline that examines the interconnections among diverse physical or engineered networks, information networks, biological networks, cognitive and semantic networks, and social networks. In this course, w
2019-2020学年秋	40470243	人工智能：原理与技术	3	交叉信息研究院	Artificial Intelligence: Principles and Techniques	This course will introduce the basic ideas and techniques underlying the design of intelligent computer systems. Specific topics include search, constraint satisfaction, game playing, graphical models, machine learning, Markov decision processes, and r
2019-2020学年秋	40470293	量子通讯与密码	3	交叉信息研究院	Quantum Communication and Cryptography	This course is offered to upper level undergraduate students, junior or senior students in the Yao Class, physics, EE, and computer science departments. The course will cover topics at the forefront of the new field of quantum communication and cryptogr
2018-2019学年春	30510053	计量经济学	3	经济管理学院	Econometrics	This course is an introduction to econometrics. It introduces students to multiple regression methods for analyzing the relationship between two or more economic variables. It starts from the simple linear regression to multivariate regression, regression
2018-2019学年春	30510202	管理信息系统	2	经济管理学院	Management Information Systems	The objectives of the Management Information Systems (MIS) course are to provide the students with (1) a understanding of MIS essentials and prospects from a combined perspective of technology and management, in the context of big data; (2) a mastery of s
2018-2019学年春	30510523	货币银行学	3	经济管理学院	Money and Banking	This course presents basic concepts and theories in monetary and banking economics. Topics covered in the course include: the structure of financial system, financial market and financial institutions, definition of money and role of bank. Money supply an
2018-2019学年春	30510732	管理学原理	2	经济管理学院	General Management	Organizations are all around us in society: we study in them, work for them, rely on them for goods and services, and we are often regulated and highly influenced by them. Understanding the management of organizations, therefore, is the key to becoming mo
2018-2019学年春	30510763	中级宏观经济学	3	经济管理学院	Intermediate Macroeconomics	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
2018-2019学年春	30510812	营销管理	2	经济管理学院	Marketing Management	Marketing is the core of an operating business, and also the management process through which goods and services move from concept to the customer. Marketing is based on thinking about the business in terms of customer needs and their satisfaction. Market
2018-2019学年春	30510863	发展经济学	3	经济管理学院	Developmental Economics	Development economics is a course involving economic problems and policies of those countries that have not yet reached the level of economic well being observed in the western world. At the completion of this course, students will be familiar with theor
2018-2019学年春	30510883	经济增长	3	经济管理学院	Economic Growth	The aim of the course is to provide students with a rigorous introduction to the empirical facts and theoretical models of economic growth. A recurring theme of this course is the question: "Why are some countries so rich, while some others are so poor?"
2018-2019学年春	30510973	计量经济学 (1)	3	经济管理学院	Econometrics(1)	The purpose of this course is to help students understand how to interpret economic data. It will focus on the issues that arise in using this type of data, and the methodology for solving these problems. The focus of the course is on regression analysis.
2018-2019学年春	30510992	战略管理	2	经济管理学院	Corporate Strategy Management	This course introduces the concepts and tools of strategy formulation and competitive analysis. You will learn about why some firms survive and prosper while others do not, and develop critical analysis and communication skills to create and implement fir
2018-2019学年春	30511021	新生专题研讨	1	经济管理学院	Freshman Seminar	
2018-2019学年春	40510333	中级财务会计 (2)	3	经济管理学院	Intermediate Financial Accounting(2)	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 account

2018-2019学年春	40510343	管理会计(1)	3	经济管理学院	Managerial Accounting (1)	This course covers derivatives such as options, forward contracts, futures contracts, and swaps. By the end of the course you will have a good knowledge of how these contracts work, how they are used, and how they are priced. Derivatives have become an in
2018-2019学年春	40510763	国际经济学	3	经济管理学院	International Economics-Theory and Policy	This course introduces to students basic concepts and theories in international economics. Topics covered in the course include: Ricardian trade model, Neo classical trade theory, The Heckscher-Ohlin, new trade theory-competitive advantage. International
2018-2019学年春	40510943	产业组织理论	3	经济管理学院	Theory of Industrial Organization	Under what circumstances should telecommunication firms be allowed to merge? When are hotel room prices
2018-2019学年春	40511012	商务案例分析	2	经济管理学院	Business Case Analysis	This course is designed for future managers who will face the new, globalized, and borderless world economy. Globalization and technological advances have created exciting opportunities for managers to pursue strategies in markets around the world. These
2018-2019学年春	40511103	博弈论	3	经济管理学院	Game Theory	Game theory is the foundation of almost all modern economic theory. It is one of the most interesting courses in undergraduate economics. Emerged originally as a field of mathematics, it has been successfully applied to all fields of economics. Furthermore
2018-2019学年春	40511133	计量经济学(2)	3	经济管理学院	Econometrics(2)	This course aims to equip students with modern econometric tools and modeling methods for them to set up suitable econometric models to do data analysis. Hence the approach of this course will be model-driven and data-driven, which focuses on econometric
2018-2019学年春	40511242	公司金融案例分析	2	经济管理学院	Case analysis for Corporate Finance	Case analysis for Corporate Finance course covers the content of both basic theory of corporate finance and the knowledge and skills of financial decision making analysis. It mainly includes the financial statement analysis, risk and return and cost of ca
2018-2019学年春	40511273	信息资源管理	3	经济管理学院	Information Resource Management	This class discusses the basic concepts and methods of information resource management, including capturing, representing, organizing, storing, processing and exploiting information. In particular, the introductory session will provide an overview of the
2018-2019学年春	40511323	人机接口设计	3	经济管理学院	Human-Computer Interaction	This module is intended for students whose work interacts with user interface issues in the design of software systems. The module stresses the importance of user-centered design and usability in the development of software applications and systems. Stude
2018-2019学年春	40511373	精算学(1)	3	经济管理学院	Mathematics of Risk(1)	The course provides a rigorous introduction to the basic probability theory and models used in the study of insurance and risk finance. Students are expected to be proficient in differential, integral, and multivariate calculus, and some previous exposure
2018-2019学年春	40511423	投资学	3	经济管理学院	Investment	This course will introduce and delineate basic concepts and techniques in investments by examining such topics as risk-return trade off, optimal portfolio construction, Capital Asset Pricing model, APT, Market efficiency, topics related to bonds and futur
2019-2020学年秋	20510082	计算机网络	2	经济管理学院	Computer Network	This course provides a comprehensive introduction to the concepts and principles about data communication and computer networking, including architectures, protocols, hardware, software, and applications. Emphasis is put upon the requirement analysis and
2019-2020学年秋	30510073	公共财政学	3	经济管理学院	Public Finance	Public Finance studies the role of the public sector in the economy. In this course, we will study the economic foundations that justify the existence of the public sector, and the economic theory that describes what the role of the public sector should b
2019-2020学年秋	30510273	数据结构	3	经济管理学院	Data Structures and Algorithms	Now we are in an Information era, which roots on a basic fact that, Information Technology (IT) has deeply and widely reshape almost every areas, e.g., production, operation, business, society and personal life. One important characteristic of information
2019-2020学年秋	30510393	审计学(1)	3	经济管理学院	Auditing(1)	This course is designed for students who plan careers in the accounting and finance functions of corporations or government entities or in the consulting/risk management/internal audit services side of public accounting and internal audit outsourcing firm
2019-2020学年秋	30510643	会计信息系统	3	经济管理学院	Accounting Information System	Information systems (IS) have become a necessity for modern companies to improve business processes, enhance management, innovate business models and build up core competitiveness. Accounting is in general concerned with the identification, collection, pr

2019-2020学年秋	30510732	管理学原理	2	经济管理学院	General Management	Organizations are all around us in society: we study in them, work for them, rely on them for goods and services, and we are often regulated and highly influenced by them. Understanding the management of organizations, therefore, is the key to becoming mo
2019-2020学年秋	30510743	中级微观经济学	3	经济管理学院	Intermediate Microeconomics	The course presents basic theories of microeconomics and its applications. Topics covered include consumer theory, firm theory, market supply and demand, externality and public goods, industrial organization, game theory, information economics, and genera
2019-2020学年秋	30510893	财务报表分析	3	经济管理学院	Financial Statement Analysis	The objectives of this course are to gain a more thorough understanding of financial accounting techniques and to explore the accounting theory underlying such techniques. Assets, revenue recognition, and income items, investments in other companies and s
2019-2020学年秋	30510962	金融机构	2	经济管理学院	Financial Institution	A well-functioning financial system is crucial to economic growth and development as it promotes efficient capital allocation, provides risk sharing, and reduces transaction costs. This course will discuss the economic foundations of financial markets and
2019-2020学年秋	30511053	公司金融	3	经济管理学院	Corporate Finance	Firms compete in Consumer & Business Markets to sell their products & services, and they also compete in Capital Markets for the resources required to operate their business. Investors provide the capital (resources) to companies with the expectation tha
2019-2020学年秋	40510093	国际会计专题	3	经济管理学院	Topics on International Accounting	This course will explain the development of accounting and financial reporting models in the world, and to evaluate the reasons and evolution of international accounting harmonization and convergence; To provide you with the key technical issues in intern
2019-2020学年秋	40510193	管理系统模拟	3	经济管理学院	Management Systems Simulation	Many analytical models and mathematical tools have been used in business decision to improve the operational efficiency and help seize the competitive advantage. Since, however, the real world business situation and environment, regarded as a system, is u
2019-2020学年秋	40510323	中级财务会计(1)	3	经济管理学院	Intermediate Financial Accounting(1)	This course will focus on U.S. accounting standards, and the underlying issues of accounting will be incorporated with its actual development in China and international accounting standards. We will also cover various ethical issues related to the use and
2019-2020学年秋	40510842	电子商务	2	经济管理学院	Introduction to Electronic Business	This course focuses on the information superhighway as the technological enabler that has dramatically changed the way in which companies orchestrate their value creation. This course, with a strategic perspective in mind, looks into the knowledge-enabled
2019-2020学年秋	40510992	企业资源规划	2	经济管理学院	Enterprise Resource Planning	ERP systems are enterprise-wide information systems that integrate various functional operations and streamline business processes. This course aims to introduce the concepts of ERP systems as well as the application, implementation, and management of ERP
2019-2020学年秋	40511003	环境与资源经济学	3	经济管理学院	Environmental and Resource Economics	This course is an introduction of Environmental and Natural Resource Economics. The objective of this course is for students to learn how basic economic theory can be used to understand and analyze environmental pollution and resource degradation problems
2019-2020学年秋	40511093	财务管理	3	经济管理学院	Financial Management	Financial strategies encompass those financial decisions that affect the long-run value of the firm. The objective of this course is to build on the concepts of financial management learned in Corporate Finance (1) and other relevant courses to provide a
2019-2020学年秋	40511202	国际商务	2	经济管理学院	International Business	International Business differs in important ways from business conducted within national borders. It poses additional challenges but also offers new opportunities. This course provides a framework for analyzing decisions made by firms in an international
2019-2020学年秋	40511223	行为经济学	3	经济管理学院	Behavioral Economics	Do people really behave according to the standard neoclassical models of economics? Or do we sometimes have self-control problems? Do we care about other people as well as ourselves? Do we suffer from overconfidence? This course will examine the common de
2019-2020学年秋	40511323	人机接口设计	3	经济管理学院	Human-Computer Interaction	This module is intended for students whose work interacts with user interface issues in the design of software systems. The module stresses the importance of user-centered design and usability in the development of software applications and systems. Stude
2019-2020学年秋	40511373	精算学(1)	3	经济管理学院	Mathematics of Risk(1)	The course provides a rigorous introduction to the basic probability theory and models used in the study of insurance and risk finance. Students are expected to be proficient in differential, integral, and multivariate calculus, and some previous exposure

2019-2020学年秋	00510493	产业组织理论	3	经济管理学院	Theory of Industrial Organization	Industrial Organization (IO) is the sub-field of microeconomics that studies firm behaviour and strategy in market competition, as well as the induced industry characteristics. Not only useful for economists, the theory of IO also provides the basic theor
2018-2019学年春	30140473	能源利用中的物理化学(英)	3	能源与动力工程系	Physical Chemistry in Energy Utilization	The course is mainly divided into three parts: chemical kinetics, introduction of quantum theory and spectroscopy, and several special topics, which are directly related to applications in the field of energy. These special topics include molecular intera
2018-2019学年春	40140982	科技英语写作与表达	2	能源与动力工程系	Technical Writing and Presentation	This course teaches engineering students how to become effective in Technical English writing and communications, following basic principles and using practical examples and exercises. It consists of three main parts. Part I will introduce the key feat
2018-2019学年春	40140993	科学研究训练	3	能源与动力工程系	Research Practice	This course aims to develop students' capability to perform scientific research as well as other challenges being considered during the process of conducting research and technology development. Course content includes basic methodologies of scientific re
2019-2020学年秋	30140482	科学计算导论(英)	2	能源与动力工程系	Introduction to Scientific Computing	The course focuses on the basic concepts in numerical analysis, including solution of ordinary differential equations (ODEs) and partial differential equations (PDEs), interpolation, optimization, parallel computing, and overview of applied computing i
2018-2019学年春	30140454	流体力学(英)	4	能源与动力工程系	Fluid Mechanics	The course is divided into two parts. The first part is on fundamentals of fluid mechanics, whereas the second part is on advanced fluid mechanics. The objective of the first part is to provide an introduction to the beauty of fluid mechanics. The stude
2019-2020学年秋	30140362	数值传热学(英)	2	能源与动力工程系	Numerical Methods in Fluid dynamics and Heat	This course teaches the fundamentals of the finite difference method for modeling fluid dynamics and heat transfer problems. The course introduces steady-state and transient methods, the SIMPLE method, upwind versus central differencing, turbulence modeli
2019-2020学年秋	30140444	工程热力学(英)	4	能源与动力工程系	Thermodynamics	The course material covers the following aspects: basic concepts and basic principles, properties of matters and the evaluation of properties, thermodynamic processes and cycles, and introduction to chemical-thermodynamics. The course content includes:
2019-2020学年秋	40140963	传热学(英)	3	能源与动力工程系	Heat Transfer	Heat transfer describes how energy is transferred as the form of heat due to temperature differences. This course utilizes the framework of Thermodynamics and Fluid Mechanics to further illustrate the typical formulations and engineering applications o
2019-2020学年秋	30140463	能源动力系统测量与仪器(英)	3	能源与动力工程系	Measurement and Instrumentation for Energy and Power Systems	The course targets basic concepts of measurement, theories and applications of various measurement techniques for key parameters, and instrumentation for energy and thermal engineering systems. Lectures and corresponding laboratories are included. 1)The
2018-2019学年春	30690552	逻辑学基础理论	2	人文学院	Foundations of Logic	The course gives an overview of classical meta-logical results, in particular, Godel's completeness and incompleteness theorems, Church-Turing's proof of the undecidability of first-order logic, and Tarski's theorem on the undefinability of truth. Afte
2018-2019学年春	30690562	模态逻辑及其应用	2	人文学院	Modal Logic and its Applications	Among branches of modern logic, modal logic provides a nice balance of expressivity and complexity, allowing it to be applied widely and extensively in many fields ranging from humanities to software design. In this course, ideas and methods of modal l
2019-2020学年秋	30690524	逻辑、语言与哲学	4	人文学院	Logic, Language, and Philosophy	This course is designed for students with backgrounds and interests in philosophy, and consists of two parts. The first part of the course introduces fundamental logical notions and methods that have applications in philosophy. Things to be covered inc

2019-2020学年秋	00691962	从古代天文学到哥白尼革命	2	人文学院	From Ancient Astronomy to the Copernican Revolution	The course is an overview of the background to Copernicus's revolution, so that the students can understand that he is part of a long tradition going back to the Babylonians, Greek antiquity, and Islamic civilization. His revolution occurred by relying
2018-2019学年夏	00692031	工程伦理	1	人文学院	Engineering Ethics	This course involves not only the discussion of the ethical problems that people will face in engineering practice, and but also an analysis of the problems by using the basic concepts and theories of engineering ethics. Through case analysis, it tells
2018-2019学年夏	00691991	分支科学哲学前沿	1	人文学院	Advanced Philosophy of Specific Sciences	The course is co-organized with the Center for Philosophy of Science at the University of Pittsburgh. We will invite its fellows to teach advanced philosophy of specific sciences at Tsinghua. The coordinator is Professor WANG Wei.
2018-2019学年夏	00692001	生命科学史与哲学	1	人文学院	History and Philosophy of Life Sciences	The course is organized by LEI Yi and WANG Wei at Tsinghua University and Professor M. Weisberg, the Chair of the Department of Philosophy at the University of Pennsylvania. We invite a historian of biology to teach history of life sciences in odd years a
2018-2019学年春	40700573	国际政治经济学基础(英)	3	社会科学学院	Fundamentals in International Political Economics	This introductory undergraduate course provides an overview of the field of international political economy (IPE) to students who have little to no previous background knowledge. The main aim is to help students to understand the interaction between inter
2019-2020学年秋	30700313	心理学概论	3	社会科学学院	Psychology and live	What is human consciousness? What is human mind and how is it related to the brain? Why do we act, think, and feel in certain ways? How do we change cognitively, emotionally, and socially over the life span? What are personality disorders and how do t
2019-2020学年秋	40701213	增长、分配和不稳定性	3	社会科学学院	Growth, Distribution and Instability in Classical Political	This course uses modern quantitative techniques to investigate works of a few important classical political economists - Smith, Malthus, Ricardo, and Marx. The emphasis is on what they had to say about economic growth, income distribution and macroecon
2019-2020学年秋	10700073	心智、个体与文化(英)	3	社会科学学院	Mind, Individual and Culture	This course provides an introduction to the core concepts that form the foundation of the field of psychology. Topics include history of psychology, research methods, biological bases of behavior, sensation and perception, consciousness, learning and me
2019-2020学年秋	30700603	行为经济学(英)	3	社会科学学院	Behavioral Economics	The purpose of this course is to inform students of decision rules and their associated biases. The course has two facets. First, it gives students a broad overview of important results from various behavioral sciences (e.g., behavioral decision research.
2019-2020学年秋	00701643	认知科学简介	3	社会科学学院	Introduction to Cognitive Science	How does the mind work? This course introduces students to the field of Cognitive Science, a scientific pursuit that aims to understand the workings of the mind using an interdisciplinary approach, from psychology, linguistics, neuroscience, anthropolog
2018-2019学年夏	00701491	经济学、公共政策与社会问题	1	社会科学学院	Economics, Public Policy and Society	The aim of this series of lectures is to introduce students to a number of issues in social science concerning the evolutionary foundations of human behaviour. How has our evolutionary heritage shaped our current societies? Can the study of our evolutiona
2019-2020学年秋	30450213	生物化学(2)(英文)	3	生命科学学院	Biochemistry(2)(in English)	Biochemistry II is the continuation of Biochemistry I. This course is divided into two parts. The first part (Chapter 14-23) is bioenergetics and metabolism, which includes principles of bioenergetics (Chapter 14), catabolism of carbohydrates, lipid acids
2018-2019学年春	30450203	生物化学(1)(英文)	3	生命科学学院	Biochemistry(1)(in English)	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 a
2018-2019学年春	30450303	遗传学(英文)	3	生命科学学院	Genetics(in English)	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.

2018-2019学年春	30450453	分子生物学(英)	3	生命科学学院	Molecular Biology(in English)	Molecular Biology is focus with the fuction of biological systems of the molecular level.Molecular Biology is central to most studies in biology and life sciences and is directly related to biomedical research and biotechnology.In this subject,students a
2018-2019学年春	40450551	科技英语写作	1	生命科学学院	Scientific writing	This course, consisting mainly of lectures, but also practical work in class and homework, will teach students the characteristics of good academic writing with a specific focus in scientific writing for the life sciences. The course will also review t
2019-2020学年秋	30450263	微生物学(英文)	3	生命科学学院	Microbiology(in English)	Microbiology is a compulsory course for students in biology department。 This course covers multiple disciplines in microorganism, molecular biology, biochemistry, immunology and microbial diseases。 Students taking this course will learn systematic knowled
2019-2020学年秋	40450263	重大疾病的分子机制 (英)	3	生命科学学院	Molecular Basis of Human Diseases(in English)	This course aims to provide students with in-depth knowledge of the basic mechanisms of common human diseases such as cancer, diabetes, obesity, atherosclerosis, Alzheimer's disease etc。 , and to prepare them for future translational research。 The course f
2018-2019学年春	10421065	微积分A(2)	5	数学科学系	Calculus A(2)	n-dimensional Euclidian spaces: point set and domain; multi-variable functions: limit and continuity; partial derivatives and total differentials, directional derivatives, gradients, vector value functions: differentials and chain rules, implicit function
2018-2019学年春	10421102	线性代数(2)	2	数学科学系	Linear Algebra(2)	Linear algebra II is mainly composed of linear space and linear transformation, and appropriately increases the content of some modern algebra. This stage should be based on the first stage, focusing on cultivating abstract thinking ability and logical re
2019-2020学年秋	10421324	线性代数	4	数学科学系	Linear Algebra	Linear algebra is a course intended primarily for engineering students. The course covers the theory of systems of linear equations, Gaussian elimination, the theory of matrices and their computations, vector spaces and linear transformations, Euclidean
2018-2019学年春	10421215	微积分(2)(英)	5	数学科学系	Calculus (2)	This is the second course in the regular two-semester calculus sequence. It is the continuation of Calculus I (in English) and undertakes a careful treatment of more advanced topics in calculus. Those topics are: (1) Differentiation theory for Functions o
2018-2019学年春	10421232	线性代数((2)(英)	2	数学科学系	Linear Algebra (2)	This course is intended primarily for mathematics, science and engineering students, taught completely in English. Through this course our student could learn to challenge themselves by learning to reason in other languages, both in English and in the m
2019-2020学年秋	10421224	线性代数(1)(英)	4	数学科学系	Linear Algebra (1)	This course is intended primarily for mathematics, science and engineering students, taught completely in English. Through this course our student could learn to challenge themselves by learning to reason in other languages, both in English and in the m
2019-2020学年秋	10421305	微积分A(1)(英)	5	数学科学系	Calculus A(1)	This is the first course in the regular two-semester calculus sequence offered by the Department of Mathematics. Students entering the sequence usually major in the natural sciences, engineering, economics and other social sciences that require a high mat
2018-2019学年春	00420183	博弈论	3	数学科学系	Game Theory	This is an introductory course on the basic concepts of Game Theory. Topics to be covered are:Combinatorial Game Theory, Games in Extensive Form, 2-person 0-sum games, Bimatrix games, Nash Equilibrium, Correlated equilibrium, Evolutionary Game Theory,
2018-2019学年春	30040362	基础工程 (英)	2	水利水电工程系	Foundation Analysis and Evaluation(in English)	This course, together with Soil Mechanics I describes the behaviour of engineering soils and simple geotechnical structures such as shallow and piled foundations, retaining walls and slopes. This course simply introduces students to the subject of geotech

2019-2020学年秋	30040393	水力学(2) (英)	3	水利水电工程 系	Hydraulics(2)	Open Channel Steady Flow Flow classification, uniform flow, specific energy, subcritical flow, supercritical flow. Gradually varied flow, water surface profiles, numerical simulation. Rapidly varied flow, momentum principle, hydraulic jump.
2019-2020学年秋	40040853	遥感基本原理和方法	3	水利水电工程 系	Theories and Applications of Remote Sensing Programming	Remote sensing measurement of hydrological variables and processes represents one of the most challenging research problems in Earth science. This course will introduce the basic concepts on remote sensing ranging from visible, near infrared, thermal inf
2018-2019学年春	40030702	结构矩阵分析 (英)	2	土木工程系	Analysis of Structures(in	This course is about the computer-oriented analysis theory and method for skeletal structures. It covers the constraint matrix method for structural geometry stability analysis; the balance matrix method for the computation of internal forces in static de
2018-2019学年夏	40031041	现代木结构设计 (英)	1	土木工程系	Design of Timber Structures	This course teaches design of timer structures. It is established based on the undergraduate course taught at university of British Columbia, Canada, and important knowledge needed in the engineering practice of china are supplemented. The major contents
2019-2020学年秋	00030272	未来交通(C-Campus Course)	2	土木工程系	Transportation for Tomorrow(C-Campus Course)	"Transportation for Tomorrow" course included in Tsinghua-KTH course "Creative Learning" is hosted by both Tsinghua University and KTH. The course is innovative in the teaching mind and approach. Different from the conventional teaching pattern that focus
2019-2020学年秋	20030142	结构力学(2)(英)	2	土木工程系	Structural Mechanics(2)(in English)	This course is intended to provide the student majoring in civil, architectural and other related areas skills of structural analysis at an intermediate level. It consists of three major topics: Matrix analysis of structures, Plastic limit analysis and dv
2019-2020学年秋	30030493	钢结构(1) (英)	3	土木工程系	Steel Structure (1) (in English)	This course is one of the most important specialised courses for undergraduates majoring in civil engineering. It mainly introduces principles of mechanism and design methods by means of lectures. More specifically, the contents include: i) characteristic
2019-2020学年秋	40030902	建筑材料(英)	2	土木工程系	Building Materials	This course offers a broad introduction to materials used in civil engineering, including cement, concrete, steel, masonry, asphalt concrete, wood and composites. The characteristics of each type of material are discussed in terms of the following aspects
2019-2020学年秋	40030942	交通分析与交通设计	2	土木工程系	Traffic Analysis and Design	The course systematically introduces traffic survey methods, road capacity, traffic flow theory, transport modeling, traffic assignments, traffic flow management and traffic simulation theory and technologies, and preliminary introductions of intelligent
2018-2019学年春	30030482	工程合同管理 (英)	2	土木工程系	Construction Contracts	Legal aspects of construction contracts and specifications; contract formation, interpretation, rights and duties, and changes; legal liabilities and professional ethics of architects, engineers, and contractors.
2018-2019学年春	40641603	莎士比亚戏剧选读	3	外国语言文学系	Reading Shakespeare	This course introduces students to seven Shakespearean plays, and acquaints students with the stage conventions and cultural trends in Shakespeare's time. Students read the plays closely and discuss the themes, characters, key passages and dramatic skills
2019-2020学年秋	30260112	微电子工艺技术 (英)	2	微电子与纳电子学系	Integrated Circuit Fabrication Processes	Integration density and performance of digital and analog integrated circuits have undergone an astounding revolution in the last few decades. Although innovative circuit and system design can account for some of these performance increases, technology ha
2019-2020学年秋	30260163	集成电路基础 (1)(英)	3	微电子与纳电子学系	Foundations of Integrated Circuit (1)	This course intends to introduce the analysis and design methodologies for the digital circuits and transistor-level digital integrated circuits. Firstly, the design approaches and design flow of digital integrated circuits are presented. Secondly, Boolean
2018-2019学年春	20430234	基础物理学(2)	4	物理系	Fundamentals of Physics (2)	As the seconed course on the fundamentals of physics, we shall make a systematic and serious introduction on Quantum Mechnics, its historical developement, basic concepts and important principles and appications in modern physics. The students will have a
2019-2020学年秋	20430225	基础物理学(1)	5	物理系	Fundamentals of Physics (1)	As the first fundamental course on physics for the physics major and related science or engineering major students, we shall systematically study Mechanics, Special Relativity and Wave Optics, laying a solid foundation for future study of Physics and rela

2018-2019学年春	10430344	大学物理(1)(英)	4	物理系	Physics(1)(in English)	We introduce Newtonian mechanics of both mass point and rigid body. After that a basic concept of Lagrangian mechanics will be introduced. Besides those, we will introduce the physics of oscillation, fluid, and waves including travelling wave, standing wa
2019-2020学年秋	10430354	大学物理(2)(英)	4	物理系	Physics(2)(in English)	In the first half of the semester, we in this class focuses mainly on the theory on the electromagnetism, from Coulomb's Law to Maxwell equation. In the second half of the semester, we will introduce the basic concept of the physical optic, special relat
2019-2020学年秋	30430224	广义相对论的应用	4	物理系	Applications of General Relativity	This course assumes the students are already familiar with Einstein's Field Equation and the physical basis behind them. It is a logic continuation of the course "Introduction to General Relativity". This course covers in details the most well-known appli
2018-2019学年春	30670552	英语新闻 (3)	2	新闻与传播学院	English News(3)	This course is planned to be given by proper foreign teachers. The foreign teacher will deliver the course in English, including (but not limited to) the media culture of UK and US, public relations and ads, speach and
2019-2020学年秋	30670612	英语新闻写作	2	新闻与传播学院	English News Writing	This course is planned to be given by proper foreign teachers. The foreign teacher will deliver the course in English, including (but not limited to) the media culture of UK and US, public relations and ads, speech and
2019-2020学年秋	14700053	英国文学的人文理解	3	新雅书院	A Humanistic Approach to English Literature	The course focus on on (a) understanding and appreciation of selected literary works, (b) the skillful art of the use of language in such works, and (c) the cultural implications (philosophical, social, and cultural nuances) of such works. And by such ap
2019-2020学年秋	14700103	文学作品导读: 西方现代小说	3	新雅书院	Guided Reading of Literary Works: Modern Fiction	Novels are not just storytelling. The structure of the novel is a mode of thinking. The novel is the most basic expression of the people's mind. It is also the tradition of oral inheritance at the beginning of human civilization and history followed by wr
2018-2019学年夏	14000022	英文实践	2	医学院	English Practice	English is an important tool for people in industry and academia of Biomedical Engineering. This course will help the students in Department of Biomedical Engineering to enhance their ability to use English in professional writing, report, and communicati
2018-2019学年春	40250942	企业与信息系统建模分析	2	自动化系	Enterprise and Information System Modeling and	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
2018-2019学年春	40251052	网络安全基础	2	自动化系	Network Security Essentials	* IP Networking and Associated Security Issues * Authentication * Authorization * Confidentiality * Integrity * Non-repudiation * Engineering Issues in Network Security