

English Taught Courses for International Exchange Students at GZU

Course Descriptions (No.1)			
Course Title	Applied Microeconomics	Course Category	<input type="checkbox"/> √ Specialty Course <input type="checkbox"/> General Elective Courses
Applicable specialties	Economics	Textbooks	Principle of Economics
<p>Title: Microeconomics Credit /Class Hours: 2-3 credits、 36-48 hrs Spring/Fall: Either Course Category: Selective course Teaching Object: Students learn microeconomics in theory and practice. Goal: Let students be more interested in microeconomics and apply it to life. Qualification: Undergraduates Prerequisite: n/a Content: (under 200words) Microeconomic theory typically begins with the study of a single rational and utility maximizing individual. To economists, rationality means an individual possesses stable preferences that are both complete and transitive. The technical assumption that preference relations are continuous is needed to ensure the existence of a utility function. Although microeconomics can continue without this assumption, it would make comparative statics impossible since there is no guarantee that the resulting utility function would be differentiable.</p>			
Course Descriptions (No.2)			
Course Title	Econometrics	Course Category	<input checked="" type="checkbox"/> Specialty Course <input type="checkbox"/> General Elective Courses
Applicable specialties	Economics, Finance, etc.	Textbooks	Introduction to Econometrics (3e) By Stock & Watson
<p>Title: Econometrics Credit /Class Hours: 3/48 Spring/Fall: Both are fine. Course Category: a Specialty Course combine Economics and Statistics Teaching Object: This is a undergraduate level of Econometrics, you could get a basic understanding in the field of econometrics. It could have two impacts on your academic life. First, if you write your undergraduate thesis, you might need some knowledge of econometrics. Second, this lecture would be helpful if you apply for a master, or above, program. Qualification: I am a Phd in Economics, a visiting scholar at the Stanford University. I'm also fluent in English, got 95 in TOEFL test. Prerequisite: Undergraduate Level of the Probability and the Statistics Content: (under 200words): Fundamentals of Regression Analysis, Regression with Panel Data, Instrumental Variables Regression, Experiments and Quasi-Experiments, Regression with a Binary Dependent Variable, Regression Analysis of Economic Time Series Data.</p>			
Course Descriptions (No.3)			

Course Title	Chinese Economy	Course Category	<input checked="" type="checkbox"/> Specialty Course <input checked="" type="checkbox"/> General Elective Courses
Applicable specialties	Economics, Finance, Business Admin, etc.	Textbooks	Self-made PPT

Title: Chinese Economy
Credit /Class Hours: 2-3 credits/ 36-48 hrs
Spring/Fall: S/F
Course Category: selective course
Teaching Object: students to know Chinese economy in detail
Goal: students to have more interest and understanding to Chinese economy, and to have more int'l cooperative opportunity with Chinese businesses.
Qualification: undergraduate/ graduate/ post-graduate students
Prerequisite: n/a
Content: (under 200words)
China is now the biggest contributor of global economic growth. This course aims to introduce Chinese-version solution of economy to students, including outline of Chinese economy, Chinese new economic thoughts, and Chinese new int'l economic cooperative actions. The main topics include: the economic structure of China, the financial system of China, FDI and int'l trade of China, China's proposal and action of One Belt and One Road, the new economic thoughts of Chinese leaders, Chinese new economic civilization, and the relationship between China and some economies, etc.

Course Descriptions(No.4)

Course Title	Introduction of Accounting	Course Category	<input checked="" type="checkbox"/> Specialty Course <input type="checkbox"/> General Elective Courses
Applicable specialties	The Economics and management Area	Textbooks	Financial Accounting: An Introduction to Concepts, Methods and Uses

Title: Introduction of Accounting
Credit /Class Hours: 32
Spring/Fall: Spring
Course Category: Specialty-related Course
Teaching Object: The students under management or economics majors
Goal: To help students develop a sufficient understanding of the basic concepts underlying financial statements.
Qualification: Undergraduate students
Prerequisite: None
Content: (under 200words)
The course consists three main part.
Part 1: Overview of Financial Statements. An introduction to business activities and overview of financial statements and the reporting process.
Part 2. Accounting Concepts and Methods. In this section, students will learn the basic concepts about financial statements. Students will understand the basics of record keeping and financial statement preparation: Balance Sheet and Income Statement. After that, students will know how to present, analyze and report resources for Balance Sheet and Income Statement. Statement of Cash Flows is another topics, reporting the effects of operating, investing, and financing activities on Cash Flows is also important.
Part 3. Measuring and Reporting Assets and Equities Using Generally Accepted Accounting Principles.
In this section, students will go further to understand the different part of financial statements. For example, revenue recognition, receivables, working capital. notes, bonds, and common stock will be discussed under this section. Students will also know something about trading market, for example, marketable securities and derivatives.

Course Descriptions(NO.5)			
Course Title	China's Foreign Trade	Course Category	<input type="checkbox"/> Specialty Course <input type="checkbox"/> General Elective Courses
Applicable specialties	Economic or Management	Textbooks	No
<p>Title: China's foreign trade Credit /Class Hours: 3/ 48 hours Spring/Fall: Fall,2018 Course Category: Specialty Course Teaching Object: International Exchange students Goal: Introducing China foreign trade to students, making them know about China's trade status as well as the advantages and deficiency. Qualification: Knowing the basic concept sand theories of Economics Prerequisite: Economic or Management Students. Content: (under 200words) Hot issues in China's foreign trade that including Reform and Opening-up, China's Economic Development, Export, Import, Market and Product Structure, Competitive Advantages and shortages, Internationalization of RMB,the Belt and Road initiative and so on.</p>			
Course Descriptions(NO.6)			
Course Title	Environmental Law and Policy	Course Category	<input type="checkbox"/> Specialty Course <input type="checkbox"/> General Elective Courses
Applicable specialties	All specialties	Textbooks	Plater, Z. J., Abrams, R. H., Graham, R. L., Heinzerling, L., Wirth, D. A., Hall, N. D & Graham, R. L. (2016). Environmental law and policy: Nature, law, and society. Wolters Kluwer Law & Business.
<p>Title: Environmental Law and Policy Credit /Class Hours: 3/3 Spring/Fall: Fall Course Category: General Elective Teaching Object: Environmental law and Policy Goal: obtaining knowledge and relevant practicing skills Qualification: n/a Prerequisite: n/a Content: (under 200words) This course will introduce the foundation of the law and policy of environmental and energy law practice. From a perspective comparative law policymaking, this course will provide students an opportunity to shape policy thinking. This course will take a form of interdisciplinary study and seminar. The contents of course include (1) Foundation of Environmental law and Energy Policy; (2) Energy Crisis and National Policy; (3) New Energy and Industrial Policy; (4) Climate Change (5) Pollution (6) Chemical and Risk, (7) Ecology Reservation (8) Torts and Litigation; (9) Environment in Business and Investment.</p>			

Course Descriptions(NO.7)			
Course Title	Chinese Criminal Procedure	Course Category	<input type="checkbox"/> Specialty Course <input checked="" type="checkbox"/> General Elective Courses
Applicable specialties	Law/Human Rights Research	Textbooks	self-edited textbook
<p>Title:Chinese Criminal Procedure Credit/Class Hours: 32 Spring/Fall:Spring Course Category:General Elective Courses Teaching Object:Foreign students/ Confucius Institute students Goal:Students study this course for understanding Chinese Criminal Procedure and related participants' rights Qualification:60 Prerequisite: Constitution Content: (under 200words)Evidence/ Criminal Procedure/ Coercive measures/ Trial Organization/ Related Participants/ Filing a Case/ Investigation and so on</p>			
Course Descriptions(NO.8)			
Course Title	Food Safety Law	Course Category	<input type="checkbox"/> Specialty Course <input type="checkbox"/> General Elective Courses
Applicable specialties	All specialties	Textbooks	Food Regulation: Law, Science, Policy, and Practice (2nd ed)
<p>Title: Food Safety Law Credit /Class Hours: 3/3 Spring/Fall: Fall Course Category: General Elective Teaching Object: Food Safety Law Goal: obtaining knowledge and relevant practicing skills Qualification: n/a Prerequisite: n/a Content: (under 200words) Course Description: Food law is the body of law governing whole food life cycle of food production, sales, consumption, import and export, etc. The food law is not a standalone domain. Topics taught under this course shall include but be not limited to: 1) introduction to food law: History, the state and characteristics of food law. 2) main issues under food law: Current food e-commerce, GMO foods, food fraud, etc. 3) comparison: Food Law in the US, Europe, Australia, India and so on.</p>			
Course Descriptions(N0.9)			
Course Title	Western Modern Philosophy	Course Category	<input checked="" type="checkbox"/> Specialty Course <input checked="" type="checkbox"/> General Elective Courses

Applicable specialties	Ideological and Political Education, Students interested in philosophy	Textbooks	Material Compiled by myself
<p>Title: Western Modern Philosophy Credit /Class Hours: 2/36 Spring/Fall: Fall Course Category: Specialty Course, also for general elective course for students good in English Teaching Object: students interested in philosophy Goal: Students can get a general understanding on the development of western modern philosophy Qualification: Prerequisite: basic knowledge on philosophy Content: (under 200words) This course will introduce several philosophical trends and its relative important philosophers, including their main claims, propositions, at the same time, the teacher will lead students to find out the developmental clue of western philosophy from the time of the ruin of Hegalian philosophy to the contemporary important philosophical trends such as postmodern philosophy.</p>			
Course Descriptions(NO.10)			
Course Title	Educational Assessment	Course Category	<input checked="" type="checkbox"/> Specialty Course <input type="checkbox"/> General Elective Courses
Applicable specialties	Teacher Education	Textbooks	Grant Wiggins. Educative Assessment: Designing Assessment to inform and improve student performance

Title: Educational Assessment

Credit /Class Hours: 2/32

Spring/Fall: Spring

Category: Specialty Course

Teaching Object: Undergraduate and/or Graduate students in Teacher Education Programme

Goal: The Educational Assessment provides students with the opportunity to review assessment of learning and for learning. It investigates the purposes and potential uses of formative and summative assessment and the relationship between the two, and develops students' understanding of principal concepts in educational assessment and encourages critical engagement with decision making in educational assessment.

Qualification: Key knowledge and skills of assessment applied in a range of educational workplaces, or to further study.

Prerequisite: Applicants are expected to have a basic understanding of school education and a clearly expressed interest in educational assessment. Teaching, assessment development and implementation is very welcomed, but not a requirement.

Content: (under 200words)

This course explores a range of themes relating to educational assessment including: social contexts in assessment, decision making in educational assessment and core theories relating to summative and formative assessments. Specifically the course is organized in three strands: (1) principal concepts and core theories in educational assessment assessment of learning and for learning, (2) key features and issues of summative assessment and formative assessment including validity, standards setting, comparability and grading, feedback and peer/self-assessment, (3) Skills in using evaluation theory to transform the way education is evaluated (both formative and summative), methods and models which support school improvement and lead to more equitable education systems.

Course Descriptions(NO.11)

Course Title	Public Management and Administration: An Introduction	Course Category	<input type="checkbox"/> Specialty Course <input type="checkbox"/> General Elective Courses
Applicable specialties	Education Management, Public Administration	Textbooks	Public Management and Administration: An Introduction

Title: Public Management and Administration: An Introduction

Credit /Class Hours: 2/32

Spring/Fall: Fall

Course Category: General Elective Course

Teaching Object: For all students including undergraduate students and postgraduate students

Goal: Understanding theories and Training skills in public administration

Qualification: Start from the stage of sophomore

Prerequisite: Mastering some basic principles of management

Content: (under 200words)

" Public Management and Administration: An Introduction " is an important academic monograph by Erwin.E. Hughes on the basis of the comparison between the traditional model of public administration and the new model of public management. This course describes two kinds of competitive theory like the traditional public administration and the new public management; explores the change of the role of government and the model of government public policy, expounds specific aspects of the new public management, such as strategic planning and management, personnel management and performance management, financial management, external factors' management and administration of the developing countries; explores responsibilities of the public sector and examines the criticism of new public management.

Course Descriptions(NO.12)

Course Title	International Primary Education Comparison	Course Category	■Specialty Course ■General Elective Courses
Applicable specialties	Primary Teachers (Teacher Education)	Textbooks	Culture and Pedagogy: International Comparisons in Primary Education

Title: International Primary Education Comparison

Credit /Class Hours: 2 Credits, 32 Hours

Spring/Fall: Spring or Fall

Course Category: Specialty Course and General Elective Courses

Teaching Object: Sophomore and Junior students, Grade 3-4 students of Primary Education

Goal: enlarge student teachers' international scope and cultivate their intercultural understanding on primary education;

- **develop their knowledge of the wider professional role of the elementary teachers in the context of contemporary issues, debates and concerns;**

Qualification: The students should normally fulfill one of the following English proficiency requirements:

- **Band 4 or 6 in the Chinese Mainland's College English Test (CET) (A Total score if no lower than 430);**
- **Other equivalent qualifications with good verbal and written skills in English;**

Prerequisite: good verbal and written skills in English;

Content: (under 200words)

The course will provide student teachers a general view of the development of primary school education in the world. Studying on the four main countries (China, Germany, United State and United Kingdoms), they are able to study and explore the similarities and differences of educational policies, school types, school curriculum core subjects, classroom management, instructional methods, teaching assignments, teacher education and so on. Students are required to analyze and interpret the connection between national educational policies and real practice of primary school education, to discuss the temporarily confronted problems and future tendencies in the four countries. In general, the course also provides an interdisciplinary overview of research results in the field of school education. In order to help student teachers to cultivate their professional competence, they will be encouraged to join in real classroom activities of instructional design. Students will be introduced to some significant theoretical perspectives on the teaching of core subjects at schools, and will be supported in their engagement with their own academic interests and relevant educational comparative research.

Course Descriptions(N0.13)

Course Title	Statistics for Psychology and Education	Course Category	<input type="checkbox"/> √ Specialty Course <input type="checkbox"/> General Elective Courses
Applicable specialties	Psychology, Education	Textbooks	Statistics for Psychology

Title: Statistics for Psychology and Education

Credit /Class Hours: 3/48

Spring/Fall: Fall

Course Category: Specialty Course

Teaching Object: Exchange Students or International Students whose major or minor is Psychology or Education

Goal: Help students to do data analyze work.

Qualification:

Prerequisite: No

Content: (under 200words)

The goal of this course is help students to learn how to do data analyze in psychology or education research. There are two main parts in this course. First part is the basic knowledge about statistics, Descriptive Statistics and Reference Statistics. In descriptive statistics students will learn types of data and how to describe the central tendency and dispersion tendency of raw data. In reference statistics, sampling, sampling distribution and hypothesis testing will be introduced to students. Students also will learn how to analyze relationship between different variables. Second part is about how to use the very popular tool in social science research field , SPSS.

Course Descriptions(NO.14)

Course Title	DODY CONSCIOUSNESS	Course Category	<input type="checkbox"/> Specialty Course <input checked="" type="checkbox"/> General Elective Courses
Applicable specialties	No limited	Textbooks	DODY CONSCIOUSNESS

Title: Body Consciousness

Credit /Class Hours: 90minutes per week

Spring/Fall: Spring

Course Category: Philosophy

Teaching Object: Undergraduate

Goal: About half year learning, students can know that body awareness is presented as a means for self-cultivated, like deeply insightful and highly original, and how it can contribute to individual and communal flourishing.

Qualification: Sophomore

Prerequisite: No

Content: (under 200words)

The valuable of the book is that building a foundation for the development of a more sophisticated and philosophically adequate sociology of body, demonstrating how the body can be a site of increased knowledge, sharpened perception, and practical discipline that improves lived experience. The contents including like Soma esthetics and care of the self ; 2. The silent, limping body of philosophy: somatic attention deficit in Merleau-Ponty; 3. Somatic subjectivities and somatic subjugation: Beauvoir on gender and ageing; 4.Redeeming somatic reflection: John Dewey's philosophy of body-mind ;5. Deeper into the storm center

Course Descriptions(NO.15)			
Course Title	China Traditional Sports Culture	Course Category	<input type="checkbox"/> Specialty Course * <input type="checkbox"/> General Elective Courses
Applicable specialties	No Limitation	Textbooks	Self-edited
<p>Title: China traditional Sports Culture Credit /Class Hours: 32 Spring/Fall: Spring Course Category: General Elective Courses Teaching Object: Foreign Students (No Specialties limitation) Goal: Disseminating China Culture through tangible China traditional sports concept Qualification: No special requirement Prerequisite: General knowledge level Content: (under 200words) China traditional sports are a precious heritage of China nation. Wushu, ethnic games and health preservations constitute distinctive and colorful China traditional sports, besides the forms with health and aesthetics value, there are vivifying China culture throughout. In this course, student will find out and try plenty of interesting China traditional sports, in the meantime, understand related traditional cultural resources, histories and philosophies as well. Lecture and sports demonstration are the main teaching methods to help foreign students to comprehend this module.</p>			
Course Descriptions(NO.16)			
Course Title	Studies on Canton's Thirteen Hongs	Course Category	<input checked="" type="checkbox"/> Specialty Course <input type="checkbox"/> General Elective Courses
Applicable specialties	All	Textbooks	Paul van Dyke, <i>The Canton Trade: Life and Enterprise on the China Coast, 1700-1845</i> , Hong Kong: Hong Kong University Press, 2006

Title: Studies on Canton's Thirteen Hongs

Credit /Class Hours: 32

Spring/Fall: Fall

Course Category: Specialty Course

Teaching Object: To promote the commercial history of Guangzhou and its long-term history of foreign trade with the western countries

Goal: Let the international exchange students know the commercial history between their own countries and China, thus better understand the historical aspect of China's One Belt and One Road strategy.

Qualification: Students of all the specialties

Prerequisite: No

Content: (under 200words)

The course aims at giving an in-depth introduction to the origin, development and transformation of the Canton system, history of the principal Hong merchants and their relevant factories, the commodities, personnel and science and technologies that exchanged, and the navigational skills, shipbuilding techniques, and commercial acumen of the western East India companies that established in Canton. The course will conclude with the abolition of Canton system in 1842. Images analysis on export paintings that representing the foreign factory compound and the people involving in foreign trade will also be included. Special emphasis will also be put on the general history of the European East India Companies and their commercial activities in Canton.

Course Descriptions(NO.17)

Course Title	Introduction to Chinese traditional Opera	Course Category	<input type="checkbox"/> Specialty Course <input checked="" type="checkbox"/> General Elective Courses
Applicable specialties	All Majors	Textbooks	self-edited

Title: Introduction to Chinese Traditional Opera**Credit /Class Hours:** 2/32**Spring/Fall:** Spring**Course Category:**General Elective Courses**Teaching Object:**International Exchange Students at GZU**Goal:**

1. This course is designed to provide students with an overview of developments in Chinese traditional Opera;
2. Students will acquire basic knowledge of Chinese traditional Opera(genre, language, structure, conduction and performance)by methods of lectures and screening, discussions, practices, question-answer and students' presentations;
3. Students will explore to the live performance and practice on the stage.

Qualification:None**Prerequisite:** None**Content: (under 200words)**

- **Introduction to Chinese traditional Opera (6 credit hour)**

The history of Chinese traditional opera in chronological way (Opera works from Song and Yuan Dynasties to Qing Dynasties);

The essential characteristics of Chinese traditional opera.

- **Chinese Opera on Stage (8 credit hour)**

The core elements of Chinese opera performance (roles, gesture,language and stage art);

The aesthetic of Chinese Opera.

- **Major Types of Operas (6 credit hour)**

Peking Opera, Local Operas(Yue opera, Qinqiang Opera, Yu Opera and Ping Opera)

- **Studies on Chinese Opera Classic Works (6 credit hour)**

Chinese Opera Stage Music, Arias of Chinese traditional Opera, Chinese Opera language Acquisition and Acting styles.

- **Performing Practices (6 credit hour)**

Students' performing practices based on what they have learned in the course.

Course Descriptions(NO.18)

Course Title	General History of Ancient China	Course Category	<input type="checkbox"/> Specialty Course <input checked="" type="checkbox"/> General Elective Courses
Applicable specialties	All majors	Textbooks	<i>The Heritage of Chinese Civilization</i>

Title:General History of Ancient China

Credit/Class Hours: 2.0

Spring/Fall:Fall

Course Category:General Elective Courses

Teaching Object:International Exchange Students

Goal:Have a general acquaintance with Chinese ancient history

Qualification:International exchange students in GZU

Prerequisite:International exchange students who major in human and social science in their mother countries

Content: (under 200words)

A brief introduction of ancient history of China(before the eve of Opium War) is necessary for international students who provisionally study in GZU. The general understanding of the past era of China benefit for them. This course contains a variety of topics related to administrative, bureaucratic, military, economic, social, religious, archaeological as well as anthropological vicissitude in past China(before the eve of Opium War). Countless historical events will be told within a particular Dynasty. The students are required to have a general understanding of the nature of ancient China history, especially for the dates of main events or the biography of the influenced people, moreover, the ethnic origins and its distribution varying from time to time are important as well. Thus, some kinds of readings like *The Heritage of Chinese Civilization* and the series chronicle like *Cambridge History of China* to fulfill the course.

Course Descriptions(NO.19)

Course Title	Cognitive Appreciation of Chinese Classic Poems	Course Category	<input type="checkbox"/> Specialty Course <input type="checkbox"/> General Elective Courses√
Applicable specialties	International Students Interested in Ancient Chinese Poems	Textbooks	Fun with Ancient Chinese Poems in Multimedia

Title: Cognitive Appreciation of Chinese Classic Poems

Credit /Class Hours: 2 credit point / 32 hours

Spring/Fall: Spring semester (2019)

Course Category: optional

Teaching Object: International Exchange Students

Goal: to usher foreign students to the beauty of classical Chinese poetry so that they have a better understanding of Chinese language and culture.

Qualification: beginners of Chinese

Prerequisite: Course of Basic Chinese

Content: (under 200 words)

This course is an optional to introduce to international exchange students Chinese classic poems selected under ten themes. As the teaching objective is to usher foreign students with basic Chinese proficiency to the peculiar beauty of classical Chinese poetry so that they have a better understanding of Chinese language and culture, the stress will be laid on the appreciation of the poetic enchantment rather than the academic research of the poetic mechanism. The contextualized back stories of the poems will be interpreted and the cognitive motivation connoted in the linguistic structure analyzed. To cater to learners' prior knowledge of Chinese culture and to enliven the exquisite charm of Chinese classic poetry, the course content will be instructed based on entertaining classroom interaction and inviting mutli-modality presentation of the poems.

Course Descriptions(NO.20)

Course Title	An Introduction to Contemporary Chinese Folk Novels	Course Category	<input type="checkbox"/> Specialty Course <input checked="" type="checkbox"/> General Elective Courses
Applicable specialties	All majors	Textbooks	Self-edited textbook

Title:	An Introduction to Contemporary Chinese Folk Novels
Credit /Class Hours:	2 credits/ 32 class hours 2 hours per week
Spring/Fall:	Spring
Course Category:	General Elective Courses
Teaching Objective:	<ol style="list-style-type: none"> 1. Provide a basic understanding of the key concepts of Chinese folk literature, its main characteristics and cultural values. 2. Familiarize students with some famous contemporary writers like Han Shaogong, Mo Yan, Yan Lianke etc. and their writing styles. 3. Engage students in weekly reading of internationally known or awarded Chinese folk novels and their English translations. 4. Provide a knowledge of the influence caused by those selected Chinese folk novels and their English Translations.
Goal:	Acquaint students with contemporary Chinese folk writers and their masterpieces, giving them a basic understanding of Chinese folk language and folk culture.
Qualification:	HSK 4
Prerequisite:	Chinese reading and writing, Chinese Literature , Chinese Culture
Content: (under 200words)	<p>Folk novels are the best and most direct form of literature by which to understand a culture. By introducing key concepts of Chinese folk literature and some internationally famous Chinese folk authors, and by a guided reading of their masterpieces and English translations, this course will help students to become familiar with contemporary Chinese folk novels, their cultural values and their present influence in the western world. A comparative study is required in order to appreciate the writings and fully comprehend Chinese culture. Students will be required to know the main characteristics of contemporary Chinese folk novels, express their own opinions in discussion and written assignments, and obtain certain abilities in appreciating contemporary Chinese folk writings. The combination of widespread reading and comparative study improves student’s critical thinking and cultural adaptability.</p>

Course Descriptions(NO.21)			
Course Title	Chinese Characters and Chinese Culture	Course Category	<input type="checkbox"/> Specialty Course <input checked="" type="checkbox"/> General Elective Courses
Applicable specialties	All specialties	Textbooks	<i>Chinese Characters</i>

Title: Chinese characters and Chinese Culture

Credit /Class Hours: 2/32

Spring/Fall: Fall of 2018

Course Category: General Elective Course

Teaching Object: International exchange students

Goal: To acquaint students with basic knowledge on Chinese characters as well as related Chinese culture

Qualification: undergraduate students

Prerequisite: Zero knowledge on Chinese with English comprehension competence

Content: (under 200 words)

- 1 Origin of Chinese Characters
- 2 Evolution of the Forms of Chinese Characters
- 3 Pictographs
- 4 Indicative Characters
- 5 Ideographs
- 6 Signific-phonetic Characters
- 7 Mutually Defining Characters
- 8 Phonetic Loan Characters
- 9 Components of Chinese Characters
- 10 Strokes of Chinese Characters
- 11 Development of Chinese Characters
- 12 Form and Structure of Modern Chinese Characters
- 13 The Mystery of Chinese Characters
- 14 Chinese History in Chinese Characters
- 15 Calligraphic Art of Chinese Characters
- 16 Test

Course Descriptions(NO.22)

Course Title	Modern Interpretation of <i>The Analects of Confucius</i>	Course Category	<input type="checkbox"/> Specialty Course <input checked="" type="checkbox"/> General Elective Courses
Applicable specialties		Textbooks	

Title: Modern Interpretation of *The Analects of Confucius*

Credit /Class Hours: 2/32

Spring/Fall: Fall

Course Category: General Elective Courses

Teaching Object: To read *The Analects of Confucius* selectively, with good understanding.

Goal: This course is to help students to understand the backbone of Chinese culture by helping them read *The Analects of Confucius* in the modern cultural context.

Qualification: After coming to China for half a year or more.

Prerequisite: Having some Basic Chinese skills.

Content: (under 200words):

The course includes the most significant views of Confucianism and people's response to them in the modern age. It includes Confucian philosophy of understanding the world and society, Confucian philosophy of education, Confucian society of marriage and family, Confucian philosophy of good government, Confucian understanding of morality and so on.

Course Descriptions(NO.23)

Course Title	Production and Operations Management	Course Category	<input checked="" type="checkbox"/> Specialty Course <input type="checkbox"/> General Elective Courses
Applicable specialties	Business Administration/ Logistics Management	Textbooks	Operations and Supply Chain Management Jacobs, F. R., & Chase, R. B.

Title: Production and Operations Management

Credit /Class Hours: 2/32

Spring/Fall: Fall

Course Category: Specialty Course

Teaching Object: This course provides students the concepts, insights and tools to deal with issues for gaining competitive advantage through managing and improving the production and operations capability of an organization.

Goal: It aims to familiarize students with the problems and issues confronting production and operations managers.

Qualification: This course contains management concepts and principles as well as analytical methodologies. It requires commitments from the students in attending and actively participating in lectures; and in completing individual assignments independently and attacking group assignments as a team.

Prerequisite: Microeconomics/Advanced Mathematics

Content: (under 200words)

This course examines the key concepts, important tools and best practices of production and operations management as practised in the manufacturing and service industries. The course includes process analysis, strategy, decision-making, capacity planning, aggregate planning, forecasting, inventory management, distribution planning, materials requirements planning (MRP), project management, quality control, sustainability issues, etc.

Course Descriptions(NO.24)

Course Title	Management	Course Category	<input checked="" type="checkbox"/> Specialty Course <input type="checkbox"/> General Elective Courses
Applicable specialties	Management & Economic	Textbooks	Stephen P.Robbins and Mary Coulter. Management.

Title: Management

Credit /Class Hours: 3/48

Spring/Fall: Fall

Course Category: Disciplinary Basic Course

Teaching Object: After learning this course, students can grip the basic theories and general methods systemically, understand management yesterday and today, and get management skills for a manager when he or she plans, organizes, leads and controls.

Goal: Through the course learning, the students should understand and grasp the basic concepts, theories and methods of management to analyze and solve the problems in business. Also it will improve the students' abilities of communication, critical thinking and team spirit.

Qualification: The first-year college student

Prerequisite: Nothing

Content: (under 200words)

Management is one of core courses in the fields of management. This course, integrating managerial theory and practice, provides thoroughly basic regulations and general method of management activities based on management thoughts and theories at all times and in all over the world. Its content contains introduction to management, management yesterday and today, and management functions including planning, organizing, leading and controlling.

Course Descriptions(NO.25)

Course Title	International Marketing	Course Category	<input checked="" type="checkbox"/> Specialty Course <input type="checkbox"/> General Elective Courses
Applicable specialties	Business Management	Textbooks	International Marketing,Seventeen edition Philip R. Cateora; Mary C. Gilly;John L. Graham,McGraw-Hill

Title:International marketing

Credit/Class Hours:2/32

Spring/Fall: Spring

Course Category: Disciplinary Basic Course

Teaching Object:studentswith major of Business Management

Goal: is to bring students a broad understanding of the nature of the marketing function and of what marketers do when operating in an international or global context.

Qualification:undergraduate and postgraduate students

Prerequisite:Marketing

Content: (under 200words)

This course is designed to provide students on the Business programme with a broad understanding of the nature of the marketing function and of what marketers do when operating in an international or global context. While underpinned by marketing theory, the course focuses on the practical application of marketing in international or global organisations, its relationship to other business functions, and the impact that marketing can have on an international organisation. Consequently, this course will equip students with skills and knowledge that they will find useful for their later employment in a business-related job. The course is delivered using a combination of lectures, in-class exercises and case studies etc. Students are expected to prepare work outside the classroom prior to participation in the scheduled sessions.

Course Descriptions(NO.26)

Course Title	Principles of Marketing	Course Category	<input checked="" type="checkbox"/> Specialty Course <input type="checkbox"/> General Elective Courses
Applicable specialties	Business administration	Textbooks	Philip Kotler, Principles of Marketing

Title: Principles of Marketing

Credit /Class Hours: 2/32

Spring/Fall: Spring

Course Category: Specialty Course

Teaching Object: undergraduate students/ postgraduates

Goal: make the students know the fundamental principles of enterprise marketing.

Qualification: Bachelor/Master

Prerequisite: Principles of Management

Content: (under 200words)

What is marketing? Marketing is a strategy that delivers value of the merchandise to the customer and capture returns from the customer. Many people think of marketing as only selling and advertising. However, selling and advertising are only the tip of the marketing iceberg. Principles of Marketing presents fundamental marketing information in a comprehensive format, organized around an innovative customer-value framework. It will introduce some core concepts of marketing, analyze STP (segmentation—targeting—positioning) strategy, and describe 4P (product, price, place and promotion) tactics.

Course Descriptions(NO.27)

Course Title	Human Resource Management	Course Category	√ Specialty Course √ General Elective Courses
Applicable specialties	major in management & economics/ General Elective Courses	Textbooks	Gary Dessler, Human Resources Management (11th edition), 2016.
<p>Title: Human Resource Management Credit /Class Hours: 3 / 48 Spring/Fall: Spring or Fall Course Category: Specialty Course / General Elective Courses Teaching Object: 1.Through the study of basic concepts and core theories of human resource management, students are required to have a basic and macro understanding of the human resource management. 2. Through a variety of specific case studies, students can master the skill and techniques that applied in human resource management field. Goal: After studying this course, students should be able to understand the history, present and future development trend of human resource management, explain human resource management on the formation of core competence and competitive advantage of organization, master the theory and techniques of job analysis, HR strategic planning, recruitment and placement, training and development, performance management, compensation design. Qualification: International Exchange Students Prerequisite: Interest in management Content: (under 200words) 1. The Strategic Role of Human Resource Management. 2.Job analysis. 3.Personnel Planning & recruiting. 4.Employee Testing & Selecting. 5.Interviewing Candidates. 6.Training & Developing Employees. 7.Appraising Performance. 8.Establishing Pay Plans. 9.Pay-For-Performance & Financial Incentives. 10.Benefits & Services. 11.Labor Relations & Collective Bargaining. 12.Managing Global Human Resources.</p>			
Course Descriptions(NO.28)			
Course Title	Tourism: Concepts and Practices	Course Category	<input checked="" type="checkbox"/> Specialty Course <input checked="" type="checkbox"/> General Elective Courses
Applicable specialties	Tourism management major; General elective course	Textbooks	Tourism: Concepts and Practices

Title: Tourism: Concepts and Practices

Credit /Class Hours: 32

Spring/Fall: Both will be OK

Course Category: Specialty Course/ General Elective Courses

Teaching Object: Tourism management major; General elective course for all foreign students.

Goal: Be familiar with the concepts and operational practices of tourism industry.

Qualification: Undergraduate students and above

Prerequisite: No needs

Content: (under 200words)

Capturing the taste of the industry, Tourism: Concepts and Practices explores this exciting field using a systems approach. Building on the author's experience, it looks at the characteristics of tourism and the demand side first, then organizing tourism, followed by the operating sectors. Full-color photographs, industry profiles, and a career emphasis reveal the opportunities tourism holds for both consumers and professionals. Special geography spotlights examine the reasons people travel and the places people go.

Course Descriptions(NO.29)

Course Title	China's Foreign Policy	Course Category	<input type="checkbox"/> Specialty Course <input checked="" type="checkbox"/> General Elective Courses
Applicable specialties	International relations,Politics, public administration, Business management	Textbooks	

Title: China's Foreign Policy

Credit /Class Hours: 2/32

Spring/Fall:Fall

Course Category:General Elective Courses

Teaching Object: to have an outline of China's Foreign policy

Goal: aiming to understand China's objectives of Foreign Policy and China's international responsibility

Qualification:

Prerequisite: a survey of China

Content: (under 200words)

This course is an introduction to the study of contemporary Chinese foreign policy. Examining the patterns of engagement with various domestic and international actors that have shaped Beijing's foreign policy since the Cold War, it explores a series of ongoing questions and trends, as well as offering an in-depth look at key points of China's current global relations. Bringing together the many different facets of China's foreign interests, the volume presents a comprehensive overview of the country's international affairs, covering such key issues as: the rise of globalization; the country's bilateral and multilateral approaches to international problem-solving; the increase in the number and types of international regimes; modern security challenges; the question of American hegemony; and, Beijing's changing political, strategic and economic linkages with the developed and developing world. "Chinese Foreign Policy" will be of great interest to upper-level students of Chinese international relations, Asian politics, comparative foreign policy and international relations, as well as professionals interested in China's changing place in the global system.

Course Descriptions(NO.30)			
Course Title	Chinese Culture	Course Category	<input checked="" type="checkbox"/> Specialty Course <input checked="" type="checkbox"/> General Elective Courses
Applicable specialties	Philosophy, History, Arts	Textbooks	Chinese Art
<p>Title: Chinese Culture Credit /Class Hours: 60 Spring/Fall: Spring or Fall Course Category: Chinese Culture Teaching Object: Chinese Philosophy, Chinese Arts Goal: Introduce Chinese arts and culture, and allow students to appreciate the creative power of Chinese art, and understand the meaning of life. Qualification: Earned a BA degree at Guangzhou Academy of Fine Arts, diploma of Toronto of University, Canada. My research areas are Chinese and foreign art history, international Chinese education, and Chinese fine arts. Content: (under 200words) This course introduces the development of six types of Chinese art, namely, calligraphy, painting, sculpture, music, dancing and drama, focuses on artworks, artists and art events, and allows students to get familiar with Chinese art, appreciate the joy of life in it, feel creative power and understand the meaning of life.</p>			
Course Descriptions(NO.31)			
Course Title	Algebraic Curves and Riemann Surfaces	Course Category	<input checked="" type="checkbox"/> Specialty Course <input type="checkbox"/> General Elective Courses
Applicable specialties	Graduate students	Textbooks	Algebraic Curves and Riemann Surfaces, Rick Miranda
<p>Title:Algebraic Curves and Riemann Surfaces Credit/Class Hours: 64 Spring/Fall: Fall Course Category:compulsory course Teaching Object:Graduate students Goal: (1) knowledge and skills (2) processes and methods (3) thinking Qualification:Graduate students who like mathematics Prerequisite:Master some theories of Advanced Mathematics, Mathematics Analysis Content: (under 200words) Riemann Surfaces: basic definitions, Projective Curves, Functions on Riemann Surfaces, meromorphic functions, holomorphic maps between Riemann Surfaces, Global properties of holomorphic maps, Group actions on Riemann Surfaces, Monodromy, Basic Projective Geometry, Integration on Riemann Surfaces, Divisors and meromorphic functions, algebraic Curves and the Riemann-Roch Theorem.</p>			
Course Descriptions(NO.32)			

Course Title	Riemannian Geometry	Course Category	<input type="checkbox"/> Specialty Course
Applicable specialties	Mathematics	Textbooks	Riemannian Geometry Petersen
<p>Title:Riemannian Geometry Credit /Class Hours: 32 or 48 Spring/Fall:Spring Course Category:Specialty Course Teaching Object: Senior Undergraduate or graduate students Goal: Give an introductory of Riemannian geometry and basic theorems. Qualification:No examination, need to finish some tasks Prerequisite:mathematical analysis and knowledge of manifolds Content: (under 200words) This course is intended for a half year course, introducing readers to the important techniques and theorems, while also containing enough background on advanced topics to appeal to those students wishing to learn more in Riemannian geometry. This course will try to combine both the geometric parts of Riemannian geometry and the analytic aspects of the theory.</p>			
Course Descriptions(NO.33)			
Course Title	Calculus	Course Category	<input type="checkbox"/> Specialty Course <input type="checkbox"/> General Elective Courses
Applicable specialties	Mathematics、 Physics、 Chemistry、 Engineering	Textbooks	Calculus: Early Transcendentals, 8th edition

Title: Calculus

Credit /Class Hours: 4.0/64

Spring/Fall: Fall

Course Category: Specialty Course

Teaching Object: First or second year students of Mathematics、 Physics、 Chemistry or engineering majors

Goal: After successful completion of this course, students should be able to: (1) handle routine computations (limits, derivatives, max-min problems, and calculation of definite integrals using the Fundamental Theorem of Calculus). (2) state (write) and apply basic definitions and major theorems. These include, but are not limited to, definitions of limit, continuous function, derivative, definite and indefinite integrals, the Intermediate Value Theorem for continuous functions, the Mean Value Theorem, and the Fundamental Theorem of Calculus. (3) supply simple proofs, e.g., some of the limit theorems, some of the rules of differentiation, and applications of the intermediate and mean value theorems. (4) compute integrals using the methods of substitution, parts, trig substitutions and partial fractions. They should be able to use integrals to compute: area; average value; volume by slicing and revolution; mass and center of mass of a bar; arclength and surface area of revolution of parametric curves; slope of, area inside, and arc length of polar curves; and work.

Qualification: 60/100

Prerequisite: Functions, Trigonometry, and Linear Systems.

Content: (under 200words)

This course covers limits, derivatives, Mean Value Theorem, applications of derivatives, integrals, Fundamental Theorem of Calculus, applications of integration. Specific topics include advanced techniques of integration, volume, area, and arc length computations.

Course Descriptions(NO.34)

Course Title	Differential Geometry	Course Category	<input checked="" type="checkbox"/> Specialty Course <input type="checkbox"/> General Elective Courses
Applicable specialties	Undergraduates	Textbooks	Differential Geometry of Curves and Surfaces, Manfredo P. do Carmo

Title: Differential Geometry

Credit /Class Hours: 48

Spring/Fall: Fall

Course Category: Specialty Course

Teaching Object: Undergraduates

Goal: (1) Knowledge and skills (2) Processes and methods (3) Thinking

Qualification: Undergraduates who like mathematics

Prerequisite: Mathematical Analysis, Advanced Algebra

Content: (under 200words)

Curves, The Local Theory of Curves Parametrized by Arc Length, Global Properties of Plane Curves, Regular Surfaces, The First Fundamental Form, A Characterization of Compact Orientable Surfaces, The Geometry of the Gauss Map, Ruled Surfaces and Minimal Surfaces, The Intrinsic Geometry of Surfaces, The Gauss Theorem and the Equations of Compatibility, The Gauss-Bonnet Theorem and its Applications, The Exponential Map. Geodesic Polar Coordinates.

Course Descriptions(NO.35)			
Course Title	Real Variable Functions Theory	Course Category	<input checked="" type="checkbox"/> Specialty Course <input type="checkbox"/> General Elective Courses
Applicable specialties	Undergraduates in Mathematical Department	Textbooks	Real and Complex Analysis (Third Edition), Walter Rudin
<p>Title:Real Variable Functions Theory Credit/Class Hours: 64 Spring/Fall: Fall Course Category: compulsory course Teaching Object:Undergraduates in Mathematical Department Goal: After successful completion of this course, students should: (1) know the main ideas of Lebesgue Measures and Lebesgue Integrals, and understand extensively other abstract measures and integrals; (2) know the essential difference and connections between the Lebesgue Integral and the Riemann Integrals; (3) know how to calculate Lebesgue integrals and the applications of Lebesgue integral theory. Qualification:60/100 Prerequisite: A fundamental of Set Theory, Calculus. Content: (under 200words) This course covers an introduction of Lebesgue integral, Set Theory and The set of Points, Lebesgue Measures Theory, Measurable functions, Lebesgue Integral Theory; Differential and indefinite integrals; L^p spaces.</p>			
Course Descriptions(NO.36)			
Course Title	Ordinary Differential Equations	Course Category	<input checked="" type="checkbox"/> Specialty Course <input type="checkbox"/> General Elective Courses
Applicable specialties	Undergraduate students	Textbooks	Ordinary Differential Equations, Adkins, William 出版社:Springer

Title: Ordinary Differential Equations

Credit/Class Hours: 64

Spring/Fall: Fall

Course Category: compulsory course

Teaching Object: Undergraduate students

Goal: (1) knowledge and skills (2) processes and methods (3) thinking

Qualification: Undergraduate students who like mathematics

Prerequisite: Master some theories of Advanced Mathematics, Mathematics Analysis

Content: (under 200words)

In mathematics, an ordinary differential equation (ODE) is a [differential equation](#) containing one or more functions of one [independent variable](#) and its [derivatives](#). The term ordinary is used in contrast with the term [partial differential equation](#) which may be with respect to more than one independent variable.

This book presents a modern introduction to analytical and numerical techniques for solving ODEs. Contrary to the traditional format-the theorem-and-proof format-the book is focusing on analytical and numerical methods. The book supplies a variety of problems and examples, ranging from the elementary to the advanced level, to introduce and study the mathematics of ODEs. The analytical part of the book deals with solution techniques for scalar first-order and second-order linear ODEs, and systems of linear ODEs-with a special focus on the Laplace transform, operator techniques and power series solutions.

Course Descriptions(NO.37)

CourseTitle	General Chemistry	CourseCategory	<input type="checkbox"/> SpecialtyCourse <input type="checkbox"/> , <input checked="" type="checkbox"/> GeneralElectiveCourse s

Credit /Class Hours:2/32

Spring/Fall:Fall

Course Category:GeneralElectiveCourses

Teaching Object:This course attempts to teach the major concepts that define modern chemistry, without going into too much detail.

Goal:To promote learning, to motivate students to develop critical thinking skills, and to help them better understand things around them.

Qualification:undergraduate or graduate.

Prerequisite: A high-school level mathematics course has been completed within the past six years.

Content: (under 200 words)

This course is designed to introduce students to the world of modern chemistry. The principles of chemistry were identified, studied, and applied long ago by ancient Chinese in order to extract a variety of metals from ores, craft beautiful pottery, make alcoholic beverages, produce gunpowder, etc. Chemistry is so practical and important; it has become the base of modern science. When you look around, you can find that chemistry makes up almost everything that you use, see, and feel. It is in the food you eat, medicines you take, clothes you wear, and much more. This explains why it can be very beneficial to learn some chemistry.

In this course, we will study chemistry gradually from the ground up, learning the basics of the atom and its behaviors, and studying some widely observed phenomena and their underneath mechanisms. The subjects covered in this course include measurement of matter, dilute solutions, buffer solution, colloids and emulsions, chemical reactions, chemical thermodynamics, electrochemistry, atomic structure and periodical table, acid and base, absorption spectroscopy, covalent and intermolecular forces bonding, etc. Through the study, we will gradually acquire basic knowledge of chemical science and have a better understanding of the world.

Course Descriptions(NO.38)

Course Title	Processing of Traditional Chinese Food	Course Category	<input type="checkbox"/> Specialty Course <input checked="" type="checkbox"/> General Elective Courses
Applicable specialties	Chemistry, Chemical Engineering	Textbooks	Selecting

Title: Processing of Traditional Chinese Food

Credit /Class Hours: 36/18

Spring/Fall: Spring

Course Category: General Elective Courses

Teaching Object: Physical and chemical development of typical Chinese food (rice liquor, tofu...) during its processing

Goal: General but in-depth introduction of food processing of typical Chinese food (rice liquor, tofu...)

Qualification: Standard qualification for the entrance of Chinese university

Prerequisite: obtained the standard qualification for the entrance of Chinese university

Content: (under 200words)

This course will comprehensively introduce the essence of the processing of traditional Chinese food
There will be 3 components:

- 1) Introduction of the history of traditional Chinese food's evolvement. The content will include, but not limit: the classification of Chinese cuisine in different region; the development of Chinese traditional food from ancient time to nowadays.
- 2) Physical and chemical change during the processing of traditional Chinese food. In order to be understood by the majority of the audience with different knowledge background, the scientific reasons behind the processing of traditional Chinese food will be comprehensively introduced, with layman English. For example, the chemical change during the fermentation process of Chinese liquor; the physicochemical advancement during the processing of Tofu; the relationship between the change and the steps of process.
- 3) Comparison among the processing of traditional Chinese food and the similar food from other countries/cultures. In order for the audience to better understand the core of Chinese food processing, the processing, physical and chemical change of each typical traditional Chinese food will be compared with those of similar food from other countries/cultures. For example, Chinese rice liquor will be compared with wine and vodka, Tofu will be compared with Chinese.

Course Descriptions(NO.39)

Course Title	Introduction to Solid State Physics	Course Category	<input checked="" type="checkbox"/> Specialty Course <input type="checkbox"/> General Elective Courses
Applicable specialties	Students in Physics	Textbooks	Kittel, Charles - Introduction To Solid State Physics 8Th Edition

Title: Introduction to Solid State Physics

Credit /Class Hours: 32

Spring/Fall: Spring

Course Category: Specialty Course

Teaching Object: Deep understanding in condensed matter physics

Goal: Helping student to understand fundamental concept in condensed matter physics

Qualification: undergraduate student

Prerequisite: College physics, Advanced Mathematics

Content: (under 200words)

Introduction to Solid State Physics is the state-of-the-art presentation of the theoretical foundations and application of the quantum structure of matter and materials. It provides timely coverage of the most important scientific breakthroughs of the last decade (especially in low-dimensional systems and quantum transport). It helps build readers' understanding of the newest advances in condensed matter physics with rigorous yet clear mathematics. Examples are an integral part of the class, carefully designed to apply the fundamental principles illustrated in the class to currently active topics of research.

Course Descriptions(NO.40)

Course Title	Signals and Systems	Course Category	<input checked="" type="checkbox"/> Specialty Course <input type="checkbox"/> General Elective Courses
Applicable specialties	Internet of Things Engineering, Electronics information Science and Technology, Opto-Electronics Information Science and Engineering	Textbooks	Signals and Systems Second Edition, Alan V. Oppenheim

Title: Signals and Systems

Credit /Class Hours: 48 hours.

Spring/Fall: Fall.

Course Category: Electronics engineering.

Teaching Object:

1. To teach students the concepts of typical signals and systems, in time-domain or frequency-domain.
2. To teach students the concepts of linear time-invariant systems, including representations, properties, convolution relationship, and analysis techniques based on Fourier and Z transforms.
3. To introduce the block diagrams for given system-functions, and the concepts of samplings and filter designs.

Goal: After leaning the course, the student shall be able to

1. understand the fundamental properties of typical signals and systems;
2. use linear systems tools, particularly transform analysis and convolution, to analyze and predict the behavior of linear systems in time or in frequency domain;
3. design some fundamental systems in signal processing.

Qualification: Exams.

Prerequisite: Engineering mathematics; circuit analysis.

Content: (under 200words)

The fundamentals of signal and system analysis are covered in this course. Typical signals and linear systems are introduced, and furthermore developed for both time and frequency domains. The switch between time and frequency domains is implemented by Fourier and Laplace, or Z transforms. These transforms will be explored by details with this course. Linear and time-invariant systems, e.g., difference and differential equations, block diagrams, system functions, poles and zeros, convolution, impulse and step responses, and frequency responses, are also illustrated by this course. Engineering applications are presented from different fields, comprising but not limited to communications, signal processing, and circuit design. Keywords for this course include signal and system analysis, impulse response, convolution, Fourier series, Fourier transforms, sampling, discrete-time processing, Laplace transforms, Z-transforms, filtering, block analysis, and applications in wireless communications.

Course Descriptions(NO.41)

Course Title	Advanced Instrumentation for Materials Characterization	Course Category	<input checked="" type="checkbox"/> Specialty Course <input type="checkbox"/> General Elective Courses
Applicable specialties	Postgraduate students majoring in Physics, Chemistry and Materials Engineering	Textbooks	Materials Characterization Techniques

Title: Advanced Instrumentation for Materials Characterization

Credit /Class Hours: 48

Spring/Fall: Fall

Course Category: Specialty-related Course

Teaching Object: Postgraduate students majoring in Physics, Chemistry and Materials engineering

Goal: An introduction of materials characterization methods (XPS, SEM, AFM, XRD, XRF, Raman, XPS) including the theory of operation, hands-on experience and the relationship between the material's structure and performance

Qualification: Postgraduate students majoring in Physics, Chemistry and Materials Engineering

Prerequisite: No

Content: (under 200words)

To understand a material's structure, how that structure determines its properties, and how that material will subsequently work in technological applications, researchers apply basic principles of chemistry, physics, and biology to address its scientific fundamentals, as well as how it is processed and engineered for use. This course is an introduction of commonly used materials characterization methods (XPS, SEM, AFM, XRD, XRF, Raman, XPS), including their theory of operation and hands-on experience. Besides, it also presents a discussion of the measurement process and instrumental analysis of samples.

This useful volume:

- 1) Explores scientific processes to characterize materials using modern technologies
- 2) Provides analysis of materials' performance under specific use conditions
- 3) Focuses on the interrelationships and interdependence between processing, structure, properties, and performance
- 4) Details the sophisticated instruments involved in an interdisciplinary approach to understanding the wide range of mutually interacting processes, mechanisms, and materials

Course Descriptions(NO.42)

Course Title	Quantum Mechanics	Course Category	<input type="checkbox"/> √ Specialty Course <input type="checkbox"/> General Elective Courses
Applicable specialties	Physics	Textbooks	Introduction to Quantum Mechanics

Title: QuantumMechanics

Credit /Class Hours: 64

Spring/Fall: Fall

Course Category: Specialty Course

Teaching Object: Physics Major

Goal:

Qualification:

Prerequisite: General Physics, Advanced Mathematics

Content: (under 200words)

The Wave Function, Time-Independent Schrodinger Equation, Formalism, Quantum Mechanics in Three Dimensions, Identical Particles, TimeIndependent Perturbation Theory, The Variational Principle, The WKB Approximation, Time-Dependent Perturbation Theory, Scattering

Course Descriptions(NO.43)			
Course Title	Internet of Things Technology	Course Category	<input checked="" type="checkbox"/> Specialty Course <input type="checkbox"/> General Elective Courses
Applicable specialties	Internet of Things Engineering, Electronic Information Science and Technology	Textbooks	English Version of Textbook will be edited and rewritten

Title: Internet of Things Technology

Credit /Class Hours: 3/48

Spring/Fall: Spring

Course Category: Specialty-related Course

Teaching Object: The purpose of the course is to enable students to grasp the definition and basic principles and applications of Internet of Things (IoT) technology, understand the development of IoT technology and understand the key technologies and methods of IoT. Students are required to understand and grasp the following aspects of IoT technology: the basic concept of sensing and networking, network architecture and key technologies of networking, radio frequency (RF) technology, sensor and detection technology, wireless sensor network, wireless communication network technology, data fusion technology, cloud computing technology, etc.

Goal: IoT technology curriculum is provided for students major in electronic information science and technology, IoT engineering. Students are required to understand the basis of today's information society, the development and application of modern networking technology, the key technology of IoT, and more in-depth study on the applications of networking and key technology for the future.

Qualification: This is a specialty-related obligatory course normally taken by year 3 students to qualify for a full undergraduate degree on a full-time basis.

Prerequisite: Courses such as Advanced Mathematics, Electromagnetic Field and Microwave Technology, Computer Network and Communication Principles are required to study first before attending the course of IoT Technology.

Content: (under 200words)

The principles, configuration and development of Internet of things technology are discussed and studied in the course. The Internet of things (IoT) is the network of physical devices, vehicles, home appliances, and other items embedded with electronics, software, sensors, actuators, and network connectivity which enable these objects to connect and exchange data. Each thing is uniquely identifiable through its embedded computing system but is able to inter-operate within the existing Internet infrastructure or wireless network. The IoT allows objects to be sensed or controlled remotely across the built network, creating opportunities for more direct integration of the physical world into computer-based systems, and resulting in improved efficiency, accuracy and economic benefit in addition to reduced human intervention. The possibilities of mobile connectivity for IoT have been reinforced by the emerging 5G mobile communication technologies to address complex IoT applications such as smart grids, smart homes, intelligent transportation and smart cities. The IoT devices collect useful data with the help of various existing technologies and then autonomously flow the data between other devices. The quick expansion of Internet-connected objects is also expected to generate large amounts of data from diverse locations, with the consequent necessity for quick merging of the data, and an increase in the need to index, store, and process such data more effectively. In recent years, there has been a significant rise in exploitation of IoT technologies to serve the data transmitted by hundreds of billions of sensors and machines, and big data collecting, processing, mining and cloud computing.

Course Descriptions (NO.44)

Course Title	Introduction to Geographic Information System	Course Category	<input type="checkbox"/> Specialty Course <input checked="" type="checkbox"/> General Elective Courses
Applicable specialties	Geography, Urban Planning	Textbooks	Introduction to Geographic Information

			Systems
<p>Title: Introduction to Geographic Information System</p> <p>Credit /Class Hours:</p> <p>Spring/Fall: Fall</p> <p>Course Category: General Elective Courses</p> <p>Teaching Object:</p> <p>This course aims to familiarize students with the principles, functions, and applications of GIS in land and urban planning and management.</p> <p>Goal:</p> <ol style="list-style-type: none"> (1) To provide a basic understanding of the concepts, operation, and management of GIS for land and urban planning and management. (2) To understand the use of GIS in land and urban planning and management. (3) To enable students to have hands on experience in using GIS in land and urban planning and management. <p>Qualification:</p> <p>Prerequisite:</p> <p>Physical Geography, Human Geography</p> <p>Content: (under 200words)</p> <p>Geographic Information System (GIS) has been widely used in the geographical sciences and planning and management of cities in the world. The Chinese government has also installed GIS for the planning and management of regions and cities. This course aims to familiarize students with the principles, functions, and applications of GIS in land and urban planning and management. Students will be exposed to the concepts and methods in establishing, managing, and using land information system in urban planning and management. Topics cover include data collection, input, encoding, checking, and manipulation of land information; structure and functions of GIS; and applications and management of GIS. The emphasis of the course is on the applications of GIS in geography, land and urban planning and management. Students will be given ample opportunity to gain hands on experience in using GIS in urban planning and management.</p>			
Course Descriptions(NO.45)			
Course Title	Statistical Methods for Geographic Analysis	Course Category	<input type="checkbox"/> Specialty Course <input checked="" type="checkbox"/> General Elective Courses
Applicable specialties	Students from all majors	Textbooks	Rogerson, P. A. Statistical Methods for Geography: A Student's Guide(4 th Ed.)[M]. London: Sage, 2015.

Title: Statistical Methods for Geographic Analysis

Credit /Class Hours: 2/32

Spring/Fall: Fall

Course Category: General Elective Courses

Teaching Object:

Upon completion of this course the students will be able to

1. Collect and handle geo-spatial data to arrange concepts and phenomenon in a geographic manner.

2. Explore spatial heterogeneity using statistical techniques.

3. Deal with spatial association and spatial processes.

4. Discover spatial relationship among phenomenon and geographic factors.

5. Analysis geographic interactions with spatial regression.

6. Carry out spatial analysis with GIS tools.

Goal:

This course is designed to help students understand the purpose, meaning, and use of statistics for geographical analysis, particularly focus on how standard statistical techniques can be applied in a spatial manner. Additionally, students will master several spatial analytical/statistical tools that have been developed specifically for geographical data.

Qualification:

Students are required to be familiar with MS Office, Excel and PowerPoint in particular. Laptop with Windows OS is recommended to be used in class.

Prerequisite: *Statistics*

Content: (under 200 words)

Geographical applications of quantitative and statistical methods to analyze and interpret geo-spatial data and solve geographic problems. Topics include Special Considerations for Spatial Data, Descriptive Statistics, Probability Models, Inferential Statistics, Analysis of Variance, Correlation, Regression Analysis, Spatial Patterns, Spatial Autocorrelation and Regression Analysis, Geographically Weighted Regression, Factor Analysis and Cluster Analysis.

Course Descriptions(NO.46)

Course Title	Principle of Semiconductor Optoelectronic Devices	Course Category	<input type="checkbox"/> Specialty Course <input checked="" type="checkbox"/> General Elective Courses
Applicable specialties	Electronic Engineering	Textbooks	Principle of Semiconductor Optoelectronic Devices

Title: Principle of Semiconductor Optoelectronic Devices

Credit /Class Hours: 48

Spring/Fall: Spring

Course Category: General Elective Courses/Selective Specialty-related courses

Teaching Object: Graduate Students

Goal: To help graduate student get insight into the semiconductor optoelectronic devices

Qualification: Research Report

Prerequisite: None

Content: (under 200words)

This course mainly focuses on the interaction between photons and electrons and the conversion between photonic energy and electronic energy, which covers the principle of semiconductor physics, the theory of planar optical waveguide, semiconductor heterojunctions, heterojunction semiconductor lasers, the absorption in semiconductors and optical detectors, low-dimensional semiconductor material, semiconductor optical amplifiers, visible semiconductor emitters and the integration of semiconductor optoelectronic devices. The course focuses on the theory and practical applications of semiconductor optoelectronic devices. It is a specialty-related course for senior undergraduates and graduate students major in communication engineering and electronic information engineering.

Course Descriptions(NO.47)

Course Title	Principle and Design of Embedded System	Course Category	<input checked="" type="checkbox"/> Specialty Course <input type="checkbox"/> General Elective Courses
Applicable specialties	Electronic Engineering/Telecomm. Engineering, Electrical Engineering, Computer Science	Textbooks	Embedded Systems: ARM Programming and Optimization, Jason D. Bakos

Title: Principle and Design of Embedded System

Credit /Class Hours: 2.5/48(32+16)

Spring/Fall: Fall

Course Category: Specialty Course

Teaching Object: undergraduate or graduate student in EE or CS

Goal: understanding of the principle and structure of embedded system chipset, how to program and design application through software and hardware.

Qualification: final project

Prerequisite: c programming

Content: (under 200words)

Introduces the specification, design, development, and test of real time embedded system software and hardware. Use of a modern embedded microcomputer or microcontroller (such as avr, stm32, Raspberry PI etc.) as a target environment for a series of laboratory projects and a comprehensive final project. Includes Microcontroller architectures and peripherals, embedded operating systems and device drivers, timer and interrupt systems, interfacing of devices, communications and networking, etc. Emphasis on practical application of development platforms.

Course Descriptions(NO.48)			
Course Title	Sensors	Course Category	<input type="checkbox"/> Specialty Course ✓ <input type="checkbox"/> General Elective Courses
Applicable specialties	Mechatronics, Measurement and Control	Textbooks	Sensors and Transducers
<p>Title: Sensors and Its Application</p> <p>Credit /Class Hours: 1/32</p> <p>Spring/Fall: Spring</p> <p>Course Category: Natural Scienc</p> <p>Teaching Object: Bachelor and Master Students</p> <p>Goal: Understanding and mastering the basic principles and typical applications of common sensors</p> <p>Qualification: At least 3 months staying</p> <p>Prerequisite: Basic physical and mathematical knowledge</p> <p>Content: (under 200words)</p> <p>The basic effect of advanced sensor and sensing principle, advanced sensor based advanced sensor based on the effect and mechanism, such as position sensor, integrated sensor, resonant sensor, photoelectric sensor, intelligent sensor, the typical application and modern sensor technology, to enable students to master the selection and use of sensors and other basic skills.</p>			
Course Descriptions(NO.49)			
Course Title	Target tracking in Artificial Intelligence	Course Category	<input checked="" type="checkbox"/> Specialty Course <input type="checkbox"/> General Elective Courses
Applicable specialties	Electronic engineering, communication and information system	Textbooks	Estimation with applications to tracking and navigation

Title:Target tracking in Artificial Intelligence

Credit /Class Hours: 2/32

Spring/Fall: both is fine

Course Category: Engineering

Teaching Object: Understanding the fundamentals from single target tracking to multiple target tracking.

Goal: The main goal is to convey the knowledge for the design and evaluation of state estimation algorithm that operate in a stochastic environment.

Qualification: Students will be qualified to run simulations in challenging multiple target tracking scenarios and be prepared for future career in AI area.

Prerequisite: Basic signal processing theory, linear system and probability theory.

Content: (under 200words)

This course is a balanced combination of mathematics-linear systems and probability theory-in order to under how a state estimator should be designed, with the necessary tools from statistics in order to interpret the results. This course does not subscribe to the philosophy of “give me the facts and don’t bother me with details.” Proofs are given to the extent that they are relevant to understanding the results.

Part 1: Introduction to target tracking and basic concepts in estimation;

Part 2: linear estimation static systems and linear dynamic systems with random inputs;

Part 3: State estimation in discrete-time linear dynamic systems;

Part 4: Target tracking in non-linear dynamic systems;

Part 5: Multiple target tracking;

Part 6: Applications of multiple target tracking in AI area.

Course Descriptions(NO.50)

Course Title	Digital System Design	Course Category	<input checked="" type="checkbox"/> Specialty Course <input type="checkbox"/> General Elective Courses
Applicable specialties	Information Engineering, Computer Science and Technology	Textbooks	Digital Design - Principles and Practices

Title: Digital System Design **Credit /Class Hours:** 2.0 / 32

Spring/Fall: Spring

Course Category: Specialty Course

Teaching Object: Basic concepts of digital design, Integrated Design Environment for digital system design.

Goal: The course gives the basic tools for the design of digital circuits and provides procedures suitable for a variety of digital applications.

Qualification: bachelor of science (BSc)

Prerequisite: Boolean algebra

Content: (under 200 words)

- (1) **Introduction:** (About digital design, Analog versus Digital, Electronic aspects of digital design...)
- (2) **Number system and codes :** (Positional number systems, General positional-number-system conversions , Representation of Negative Number)
- (3) **Digital circuits :** (Logic signal and gate, CMOS Logic, CMOS Static electrical behavior)
- (4) **Combination logic design principle** (Switching Algebra, Combinational-Circuit analysis ...)
- (5) **Hardware description languages** (HDL-based digital design, VHDL hardware description language...)
- (6) **Combinational & Sequential logic design practices**

Course Descriptions(NO.51)

Course Title	Engineering Heat Transfer	Course Category	<input type="checkbox"/> Specialty Course <input type="checkbox"/> General Elective Courses
Applicable specialties	Specialties in Engineering	Textbooks	Heat Transfer, By J.P. Holman

Title: Engineering Heat Transfer

Credit /Class Hours: 1.5/24 hours

Spring/Fall: Spring

Course Category: Specialty Course

Teaching Object: Introduction to heat transfer for engineering students.

Goal: Through this course, the students will learn the basic principles of heat transfer and its typical applications. The student will be also trained the capabilities to analyze and calculate the heat transfer problems in practical engineering.

Qualification: Engineering students

Prerequisite: Students are assumed to have completed their basic physics and mathematics courses (i.e., thermodynamics, fluid mechanics, and differential equations).

Content: (under 200words)

Heat transfer is a basic science that deals with the rate of transfer of thermal energy, and it has emerged as a central discipline in contemporary engineering science. This introductory course is intended for use in a first course in heat transfer for undergraduate engineering students. This course will cover the standard topics of heat transfer with an emphasis on physics and real-world applications, while de-emphasizing intimidating heavy mathematical aspects. Moreover, a conscious effort will be made in this course to emphasize how the modern tools (i.e., computational fluid dynamics) are used in engineering heat transfer practice.

Course Descriptions(NO.52)			
Course Title	Engineering economics and cost analysis	Course Category	<input checked="" type="checkbox"/> Specialty Course <input type="checkbox"/> General Elective Courses
Applicable specialties	Civil engineering	Textbooks	Engineering economics and cost analysis
<p>Title: Engineering economics and cost analysis Credit /Class Hours: 3 credits/48 periods Spring/Fall: Spring Course Category: Specialty Course Teaching Object: Undergraduate of civil engineering Goal: The main objective of this course is to make the Civil Engineering student know about the basic law of economics, how to organize a business, the financial aspects related to business, different methods of appraisal of projects and pricing techniques. At the end of this course, the student shall have the knowledge of how to start a construction business, how to get finances, how to account, how to price and bid and how to assess the health of a project. Qualification: junior standing or approval of instructor Prerequisite: higher mathematics, probability and mathematical statistics Content: (under 200words) This course includes four units as follows. UNIT I BASIC ECONOMICS: Definition of economics - nature and scope of economic science ,nature and scope of managerial economics, basic terms and concepts ,economies of large ,law of diminishing marginal utility, relation between economic decision and technical decision. UNIT II DEMAND AND SCHEDULE :Demand - demand schedule , demand curve, law of demand, elasticity of demand, types of elasticity, factors determining elasticity ,measurement, supply curve, time element in the determination of value, market price and normal price ,perfect competition. UNIT III FINANCING: Types of financing - Short term borrowing , Long term borrowing , Internal generation of funds, External commercial borrowings , Assistance from government budgeting support and international finance corporations ,analysis of financial statement. UNIT IV COST AND BREAK EVEN ANALYSES: Types of costing , traditional costing approach, activity base costing, Fixed Cost , marginal cost, full cost pricing, marginal cost pricing, going rate pricing, bid pricing , pricing for a rate of return, appraising project profitability , internal rate of return , payback period , net present value, cost benefit analysis, feasibility reports, financial feasibility. Break even analysis, managerial uses of breakeven analysis.</p>			
Course Descriptions(NO.53)			
Course Title	Ground Improvement	Course Category	<input type="checkbox"/> Specialty Course <input type="checkbox"/> General Elective Courses
Applicable specialties	Civil Engineering	Textbooks	Principles and Practices of Ground Improvement

Title: Ground Improvement

Credit /Class Hours: 24

Spring/Fall: Fall

Course Category: Specialty Course

Teaching Object: International Exchange Students

Goal: Understand the principles of ground improvement technology and apply the principles to solve problems

Qualification: Upper-level undergraduate students and graduate students, researchers and practicing engineers

Prerequisite: Soil mechanics, Foundation engineering

Content: (under 200words)

Ground improvement is popular in many countries to solve difficult geotechnical problems, especially when construction necessarily occurs in problematic soils and under difficult geotechnical conditions. Many recent developments in equipment, materials, and design methods have made ground improvement technologies more effective, efficient, and economic. However, the state of practice for most ground improvement technologies is that the practice is ahead of theory. This course covers both theoretical and practical aspects in the design and construction of a variety of ground improvement technologies commonly used in practice. This course includes detailed design procedures for most of the ground improvement methods, which enable their easy implementation in practice. The design examples and homework assignments in this course will help better understand and apply the principles to solve real problems.

Course Descriptions(NO.54)

Course Title	Membrane Technology for Water and Wastewater Treatment	Course Category	<input checked="" type="checkbox"/> Specialty Course <input type="checkbox"/> General Elective Courses
Applicable specialties	Municipal Engineering, Environmental Engineering	Textbooks	Sustainable Membrane Technology for Water and Wastewater Treatment (ISBN: 9811056218, Springer, 2017)

Title: Membrane Technology for Water and Wastewater Treatment

Credit /Class Hours: 2/32

Spring/Fall: Fall

Course Category: Specialty

Teaching Object: The whole picture of membrane technology for water and wastewater treatment

Goal: Let the students know the basic knowledge and development trends of membrane technology for water and wastewater treatment

Qualification: Junior, Senior, or Master students from municipal or environmental engineering

Prerequisite: none

Content: (under 200words)

Sustainability and How Membrane Technologies in Water Treatment Can be a Contributor
LCA for Membrane Processes

Process Intensification: Definition and application to membrane processes

Sustainable route in preparation of polymeric membranes

Inorganic Membranes in Water and Wastewater Treatment

Desalination by Reverse Osmosis

Membrane Distillation in Desalination and Water Treatment

Zero liquid discharge in desalination

Removal of Toxic Compounds from Water by Membrane Distillation (Case study on arsenic)

Municipal wastewater treatment by membrane bioreactors

Valuable Products Recovery from Wastewater in Agrofood by Membrane Processes

Membrane Operations for the Recovery of Valuable Metals from Industrial Wastewater

The potential of membrane technology for treatment of textile wastewater

Course Descriptions(NO.55)

Course Title	Structural analysis and design	Course Category	<input checked="" type="checkbox"/> Specialty Course <input type="checkbox"/> General Elective Courses
Applicable specialties	Civil Engineering, Mechanical Engineering, Architectural Engineering	Textbooks	Structural systems: behaviour and design

Title: Structural analysis and design

Credit /Class Hours: 32 Class Hours

Spring/Fall: Spring and Fall

Course Category: Civil Engineering, Mechanical Engineering, Architectural Engineering, etc

Teaching Object: Senior undergraduate and graduate students in fields of engineering

Goal: The course allows students being able to apply design concepts to their own structural design projects.

Qualification: Writing a scientific report

Prerequisite: Basic mechanics and mathematical courses are required

Content: (under 200words)

This course introduces analysis techniques for complex structures and the role of material properties in structural design, failure, and longevity. Students will learn about the energy principles in structural analysis and their applications to statically-indeterminate structures and solid continua. Additionally, the course will examine matrix and finite-element methods of structured analysis including bars, beams, and two-dimensional plane stress elements. Structural materials and their properties will be considered, as will metals and composites. Other topics include modes of structural failure, criteria for yielding and fracture, crack formation and fracture mechanics, and fatigue and design for longevity.

Course Descriptions(NO.56)

Course Title	Energy Geotechnical Engineering	Course Category	<input type="checkbox"/> Specialty Course <input type="checkbox"/> General Elective Courses
Applicable specialties	Civil Engineering, Environmental Engineering, Physical Geography and Resource Environment	Textbooks	Energy Geotechnics (1st edition)

Title: Energy Geotechnical Engineering

Credit /Class Hours: 32 Hours

Spring/Fall: Fall

Course Category: General Elective Courses

Teaching Object: Undergraduate student

Goal: Understand and match the frontier knowledge and current development of Energy Geotechnics such as methane hydrate-bearing sediment, energy pile, Nuclear Waste Deposits.

Qualification: International exchange student at Guangzhou university

Prerequisite: Major in Engineering

Content: (under 200words)

Energy geotechnics involves the use of geotechnical principles to understand the coupled thermo-hydro-chemo-mechanical processes encountered in collecting, exchanging, storing, and protecting energy resources in the subsurface. In addition to research on these fundamental coupled processes and characterization of relevant material properties, applied research is being performed to develop analytical tools for the design and analysis of different geo-energy applications. The aims of this course are to discuss the fundamental physics and constitutive models that are common to these different applications, and to summarize recent advances in the development of relevant analytical tools.

Energy Geotechnics encompasses a large number of different applications, with a common thread of needing to understand coupled flow, deformation, and reaction processes encountered when collecting, exchanging, storing, and protecting energy resources in the subsurface. Energy generation applications involving geotechnics include recovery and characterization of gas hydrate-bearing sediments, development of enhanced geothermal systems for electrical power generation, and collection of hydrocarbons from challenging geological settings. Another important application is the protection of the environment through the disposal of energy waste, including both high-level radioactive waste disposal and geologic sequestration of carbon dioxide. This course will summarize the key literature relevant to these applications.

Course Descriptions(NO.57)

Course Title	Re-thinking historic archi-types	Course Category	<input checked="" type="checkbox"/> Specialty Course <input type="checkbox"/> General Elective Courses
Applicable specialties	Material Science, Architecture Structures, Computational Design	Textbooks	

Title: Re-thinking historic archi-types

Credit /Class Hours: 45 hours

Spring/Fall: Fall

Course Category: Specialty-related Course

Teaching Object:

The course will study the modularity underlying the organizational structure of traditional Chinese villages for later design an alternative housing prototype.

- Create innovative housing structures responding to a set of variables: available local technologies, use of raw materials and sustainability of the production methods.
- Interpret local building technologies and integrate its conditionings into a new process of design and making.
- Use advanced computational tools and fabrication technologies to create scaled prototypes of housing structures.

Develop a strategy to dialog with new economic pressure in rural areas of China.

Goal:

- Demonstrate a critical understanding of the raw materials potential and its contribution to a sustainable building technology.
- Demonstrate a critical understanding of fabrication technologies to produce architectural structures.
- Understanding the relationship between material craft and technology through direct engagement with making.
- Understand the dialogue between material-based processes vs digital-oriented processes, and how such processes can operate in the context of real materialization of architectural projects.

Qualification: Architecture students

Prerequisite: The course is mainly for graduate students.

Content: (under 200words)

This course aims to challenge students to study traditional village structures in Guangdong province and engage them in the making of a new housing prototype. The most innovative architecture uses “making” in its daily practice instead of exclusively drawing or digital modeling. Making will be the strategy in this course to help the students to generate structural systems that are specific to the study site.

Ancient villages in China Guangdong province are under severe destruction by its occupants. How might our work define a new type of architecture that can adapt to local materials and technologies and respond to the changing need of its occupants? Can the reinterpretation of the traditional methods of construction, using advanced building technologies, provide better housing structures adapted to the contemporary life of nowadays villagers?

Course Descriptions(NO.58)

Course Title	Marine Ecology	Course Category	<input type="checkbox"/> Specialty Course <input type="checkbox"/> General Elective Courses
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Applicable specialties	Environmental science/technology, Geography or bioscience	Textbooks	<Marine Ecology: Concepts and Applications> (by Martin R. Speight)
<p>Title: Marine Ecology Credit /Class Hours: 2 credits Spring/Fall: Fall Course Category: Specialty-related Course Teaching Object: Environmental science/technology, Geography or bioscience Goal: To understand marine environmental characteristics, main ecological groups in marine life, material flow and energy flow in marine ecosystems; to understand the importance of ecology theory for marine management. Qualification: Students who are interested in Ecology Prerequisite: Can communicate in English Content: (under 200words) This course is one of the most significant interdisciplinary disciplines in the field of marine science and is closely related to social issues. Through learning this course, students can understand marine environmental characteristics, main ecological groups in marine life and material flow and energy flow in marine ecosystems. This course also includes scientific management principles of marine fishery resources, marine red tides, marine pollution characteristics, marine life biodiversity characteristics and protection, and the principles and approaches of restoration ecology. This course also introduces the importance of ecology theory to deal with ecological problems and realize sustainable development.</p>			
Course Descriptions(NO.59)			
Course Title	Environment biotechnology	Course Category	<input checked="" type="checkbox"/> Specialty Course <input type="checkbox"/> General Elective Courses
Applicable specialties	Environment science, environment engineering, civil engineering	Textbooks	Environment and Biotechnology

Title: Environment biotechnology

Credit /Class Hours: 32

Spring/Fall: fall

Course Category: Specialty Course

Teaching Object: Grade 3/4 bachelor student and master student

Goal: achieve the basic knowledge for microbial classification, roles in nature environment, and application in biological treatment

Qualification: Environment science, environment engineering, civil engineering

Prerequisite: knowledge about biology in high school

Content: (under 200words)

Environment and biotechnology applies to the use of biotechnology to study the natural environment. It harnesses biological process for commercial uses and is exploited for the development, use and regulation of biological systems for remediation of contaminated environments while developing environment-friendly processes. The course of environmental biotechnology gives a general introduction of environmental microbiology, and new development of biotechnology. Classification, eco-physiology of microbiology, role of microbes in environment, detection methods for microbes, degradation of pollutant by microorganisms, bioremediation, and role of microbes in sustainable development of society are all involved in the course of environmental biotechnology.

Course Descriptions(NO.60)

Course Title	China Business Law Guide: A Practical Aspect	Course Category	<input type="checkbox"/> Specialty Course <input checked="" type="checkbox"/> General Elective Courses
Applicable specialties	law, political science, and other humanities and social sciences	Textbooks	Materials compiled by the teacher

Title: China Business Law Guide: A Practical Aspect

Credit /Class Hours: 32

Spring/Fall: Fall

Course Category: a general elective course

Teaching Object: students specialized in law, political science and other social sciences and humanities.

Goal: By emphasizing the pertinent laws and regulations and analyzing the relevant cases, this course provides a guide on the legal practice of doing business in China and tries to help the class generally understand the legal system on business of China.

Qualification: Participants should be able to follow the class in English.

Prerequisite: This course is open to the international students who are interested in China business law. It is probably more suitable for those specialized in law, business, international relationships, or cultural comparison.

Content: (under 200words)

With an emphasis on practical aspects, the *China Business Law Guide* is especially designed for the international exchange students. It aims to help the participants in this course gain a general knowledge of doing business in China within its legal system.

The class starts with an introduction of the Chinese legal system, which provides a skeleton of the Chinese legislation and litigation. Then the class will be guided onto the pertinent laws and regulations related to doing business in China. It will focus on the currently existing commercial laws and regulations, explanation and interpretation of which will be supported with previous cases. Subjects of this course mainly include the company law, foreign investment enterprise law, contract law, intellectual property law, labor law, security law, insurance law, banking law, ecommerce law, and arbitration law. All the subjects will be finished within fifteen weeks, with each week covering two teaching hours. In the sixteenth and last week, there will be a test or exam. Performance of the students will be evaluated according to their in-class activities and the test results.