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湖南大学

本科专业培养方案(2015 版)

核心课程简介



湖南大学教务处

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编 码: AR03005**Code:**AR03005**课程名称:** 建筑力学**Course Title:**Architectural Mechanics**课程类别:** 学类核心**Course category:**Major Survey Course**学 分:** 3**Credit(s):**3**开课单位:** 土木工程学院**Offering College/School:**College of Civil Engineering

课程描述: 这是一门为建筑学院城乡规划专业学生开设的技术基础课,通过该课程的教学使学生掌握建筑力学的基本概念、基本原理和基本计算能力,培养学生分析问题、解决问题的能力,并使使学生逐步了解常用结构的受力性能。主要内容包括:平面力系的合成与平衡条件、平面体系的几何组成分析、杆件强度、刚度及稳定性计算的原理与方法、平面杆件结构内力和位移的计算原理和方法等。

Course description: This is a technologically basic course for students majoring in rural and urban planning, aiming at their mastery of the basic concepts, theories and calculating methods of structure analysis. The study of this course develops the students' ability to analyze and solve practical problems, and make them come to understand the mechanical property of structures in common use. The main contents of this course include composition and equilibrium conditions of planar force system, analysis of geometrical stability of plane system, calculating methods of member strength and stiffness, calculating principles of structure stability, and the ways to obtain structure internal force and displacement.

编 码: AR03028**Code:**AR03028**课程名称:** 工程图学**Course Title:**Engineering Graphics**课程类别:** 学门核心**Course category:**Introductory Major Course**学 分:** 2**Credit(s):**2**开课单位:** 土木工程学院**Offering College/School:**College of Civil Engineering

课程描述: 本课程的主要内容是画法几何理论知识, 即研究用投影法在平面上表达空间形体的图示方法和在平面图形上解决空间几何问题的图解方法。本课程旨在培养和发展学生的空间想象和空间构思能力, 提高学生的自学能力和分析解决问题的能力, 培养学生认真负责的工作态度和严谨细致的工作作风。与此同时, 本课程对增强学生的工程和创新意识还起着重要作用。通过对本课程的学习, 学生应掌握投影法尤其是正投影法的基本理论及其应用。

Course description: This course deals with theories of Descriptive Geometry which studies how to express solids in the plane by projection methods and how to solve the problems of the spatial geometry in the plane figure. The course is intended for developing the spatial imagination and creation, improving the abilities to self-learn, analyze and solve problems, and training the responsible attitude and meticulous style for students. This course also plays an important role in enhancing the engineering and innovation consciousness for students. The student is required to master the basic theories of projection methods, especially the orthographic projection methods and their application.

编 码: CE04003**Code:**CE04003**课程名称:** 理论力学 C**Course Title:**Theoretical Mechanics**课程类别:** 学类核心**Course category:**Major Survey Course**学 分:** 4**Credit(s):**4**开课单位:** 土木工程学院**Offering College/School:**College of Civil Engineering

课程描述: 理论力学是土木工程专业的一门重要专业核心课程。它以微积分、大学物理等课程为前导课程,为进一步学习后续力学课程(如材料力学、结构力学、流体力学、土力学、结构动力学等)提供理论基础。本课程主要包括静力学、运动学和动力学三部分主要内容。学生需要了解复杂工程结构/机构系统的静/动力学建模与分析,理解静力学公理、质点/刚体简单运动学规律和动力学三大定理,即动量定理、动量矩定理和动能定理;掌握平面任意力系的简化方法、点的复合运动分析、刚体平面运动分析方法、质点系动力学基本定律和刚体平面运动微分方程、动能定理、虚位移原理。通过本课程的学习,学生应学会质点、质点系和刚体静学平衡、简单运动学与动力学的基本规律和研究方法,灵活运用理论力学的理论和方法分析、解决一些简单的工程实际问题, 锻炼和提升科学建模与分析的能力。

Course description: Theoretical mechanics is one of the most important required courses for students majored in civil engineering. Taking Calculus, fundamental university physics as pre-required courses , this course provides theoretical basis for forthcoming advanced mechanics-related courses(i.e., mechanics of materials, structural mechanics, fluid mechanics, soil mechanics, and structural dynamics). Statics, kinematics and dynamics are the three basic building blocks for the theoretical mechanics course. The students are required to know simple modelling and analysis for complex engineering structural and mechanical systems, to understand basic laws in statics, simple motions for particles and rigid bodies, and three basic laws in dynamics, i.e., the momentum theorem, moment of momentum theorem and work-energy theorem. Most importantly, the students should grasp simplifications techniques for general plane force systems, the compound motions for particles, planar motion analysis for rigid bodies, basic dynamic equations for particles and rigid bodies, work-energy theorem and principle of virtual displacements. After finishing this course, the students would learn the basic laws and methods for modelling and analyzing the particle, particle systems, and rigid bodies, and are able to solve some simple engineering problems, with the capabilities of scientific modelling and analysis improved.

编 码: CE04004**Code:**CE04004**课程名称:** 材料力学 D**Course Title:**Material Mechanics**课程类别:** 学类核心**Course category:**Major Survey Course**学 分:** 4**Credit(s):**4**开课单位:** 土木工程学院**Offering College/School:**College of Civil Engineering

课程描述: 材料力学是重要的力学理论基础课程,通过杆件的内力、应力、应变分析,材料的力学行为,强度、刚度、稳定性等知识的学习,使学生对杆件的强度、刚度和稳定性问题具有明确的基本概念并掌握其基本分析方法,本课程的任务是培养学生掌握杆件基本变形和组合变形时的强度、刚度和稳定性的分析方法,为学习后续课程提供必要的基础。

Course description: As an important mechanical cause for civil engineering students, the cause deals with the fundamental problems of engineering mechanics. The subject of the course is focus on developing ability of students to solve the problem of the load-carry of structural members, and strength, rigidity, and stability for the components of the structures. The emphases are on the fundamental concepts and analyses of stress, strain, forces and deformations of simple structure elements such as beams and columns. It includes 10 chapters, which are: Introduction and Basic Concepts, Axial Loading, Torsion, Geometric Properties of an Area, Bending Stresses, Displacements of Bending Beam, Simple Statically Indeterminate Problems, Stress State & Theory of Strength, Combined Deformation & Analysis of Connections, Stability of Column.

编 码: CE04005	Code:CE04005
课程名称: 结构力学 A(上)	Course Title:Structural Mechanics (1)
课程类别: 学类核心	Course category:Major Survey Course
学 分: 3	Credit(s):3
开课单位: 土木工程学院	Offering College/School:College of Civil Engineering

课程描述: 结构力学(1)即经典结构力学,是土木工程专业的一门重要专业基础课。一方面它以理论力学、材料力学等课程为基础,另一方面,它又为结构力学(2)及土木工程专业课程提供必需的基础知识和计算方法,而且在土木工程专业课程设计的过程中也要反复用到结构力学(1)知识。结构力学(1)在整个课程体系中处于承上启下的核心地位。结构力学(1)主要包括:绪论,平面体系几何组成分析,静定梁和静定平面刚架, 实体三铰拱, 静定平面桁架与组合结构,虚功原理和结构位移计算,力法。本课程的教学目的,是使学生掌握平面杆件结构的组成规律,掌握平面杆件结构内力、位移的计算原理和方法,了解各类平面杆件结构的受力性能,重点培养学生的分析能力、计算能力、定性判断能力与创新能力,为学习结构力学(2)和有关专业课程以及进行结构设计和科学研究打好静力学基础。

Course description: Structural Mechanics (1) is called classic Structural Mechanics. It belongs to one of technically fundamental course in civil engineering major. Theoretical Mechanics and Strength of Materials would provide primary principles and basement of mechanical analysis for the studying of Structural Mechanics (1), and Structural Mechanics (1) will provide basic mechanical knowledge and analysis methods for the studying of Structural Mechanics (2) and the specialistic course in civil engineering. Structural Mechanics plays a very important role and is a link between the preceding courses and the following courses learned by the undergraduates majoring in the specialty pertinent to civil engineering. It includes 7 chapters, which are: introduction, geometric construction analysis of structures, statically determinate beams and plane statically determinate rigid frames, three-hinged arches, plane statically determinate trusses and composite structures, principle of virtual work and displacement of structures, force method. The study of this course is aiming at the students' mastery of the theories and methods of member system analysis, and make students come to understand the mechanical property of structures in common use. The study of this course develops the students' ability of calculating and innovation, and the experience to analyze and solve practical problems, thus laying a solid foundation for their study of follow-up courses such as Structural Mechanics (2) and Reinforced Structure.

编 码: CE04006**Code:**CE04006**课程名称:** 结构力学 A(下)**Course Title:**Structural Mechanics (2)**课程类别:** 学类核心**Course category:**Major Survey Course**学 分:** 3**Credit(s):**3**开课单位:** 土木工程学院**Offering College/School:**College of Civil Engineering

课程描述: 结构力学(2)主要包括结构力学的几个专题,它是结构力学(1)的深化与应用。结构力学(2)是土木工程专业的一门重要专业基础课,它与结构力学(1)一起为土木工程专业课程提供必需的基础知识和计算方法,而且在土木工程专业课程设计、毕业设计的过程中也要反复用到结构力学知识。结构力学在整个课程体系中处于承上启下的核心地位。结构力学(2)主要包括:位移法的基本原理,结构分析的渐近方法与计算机方法,移动荷载、动力荷载作用下结构的计算原理。本课程的教学目的,是在结构力学(1)的基础上,使学生进一步掌握超静定结构的手算方法、近似方法与电算方法,掌握移动荷载、动力荷载作用下结构内力、位移的计算原理和方法,以提高学生结构手算能力、脑算能力、机算能力与创新能力,激发学生综合应用力学知识解决实际问题的兴趣,并为进一步深造打下较好的基础。

Course description: Structural Mechanics (2) include mainly some topic contents of Structural Mechanics, and is the deepening and applications of Structural Mechanics (1). Structural Mechanics (2) also belongs to one of technically fundamental course in civil engineering major. Structural Mechanics (2) and Structural Mechanics (1) together will provide basic mechanical knowledge and analysis methods for the studying of the specialistic course in civil engineering, and is a link between the preceding courses and the following courses learned by the undergraduates majoring in the specialty pertinent to civil engineering. It includes: displacement method, asymptotic method and computer method in structural analysis, the analysis methods of structural response induced by moving loadings and dynamic loadings. The study of this course is aiming at the students' mastery of the theories and methods of member system analysis under moving loads and dynamic loads, and make students come to understand the basic principle of displacement methods. The study of this course develops the students' ability of hand calculation, brain calculation, computer calculation and ability of innovation, and the experience to analyze and solve practical problems. Additionally, this course is to provide student with a firm foundation for pursuing follow-up courses.

编 码: CE04009**Code:**CE04009**课程名称:** 土木工程材料**Course Title:**Civil Engineering Materials**课程类别:** 学类核心**Course category:**Major Survey Course**学 分:** 3**Credit(s):**3**开课单位:** 土木工程学院**Offering College/School:**College of Civil Engineering

课程描述: 土木工程材料是为土木工程专业学生开设的专业基础必修课。主要研究土木工程工程材料的组成、结构与性能之间的关系。通过本课程的学习和实践环节的技能训练,学生应能够合理选择常用的土木工程材料,具备配制混凝土的初步能力,同时培养学生的进行常规材料性能测试的动手能力,为专业课的学习以及混凝土结构设计打下坚实基础。

Course description: This is a basic course for majors of civil engineering and the main contents cover relationship between composition, structure and properties of civil engineering materials. Through the course study and technical training in practices, the students are expected to have basic concept and capability on reasonable selection of conventional materials and design concrete mixture. The course also prepares a solid foundation for training the ability of material testing skills by hand, and for studying subsequent other courses, fulfilling curriculum projects and the graduation design for students.

编 码: CE04012**Code:**CE04012**课程名称:** 工程力学 B**Course Title:**Engineering Mechanics B**课程类别:** 学类核心**Course category:**Major Survey Course**学 分:** 4**Credit(s):**4**开课单位:** 土木工程学院**Offering College/School:**College of Civil Engineering

课程描述: 这是一门为建筑环境与能源应用工程专业学生开设的技术基础课, 通过该课程的教学使学生掌握建筑力学的基本概念、基本原理和基本计算能力, 培养学生分析问题、解决问题的能力, 并使使学生逐步了解常用结构的受力性能。主要内容包括: 平面力系的合成与平衡条件、平面体系的几何组成分析、杆件强度、刚度及稳定性计算的原理与方法、平面杆件结构内力和位移的计算原理和方法等。

Course description: This is a technologically basic course for students majoring in Building Environment and Energy Engineering, aiming at their mastery of the basic concepts, theories and calculating methods of structure analysis. The study of this course develops the students' ability to analyze and solve practical problems, and make them come to understand the mechanical property of structures in common use. The main contents of this course include composition and equilibrium conditions of planar force system, analysis of geometrical stability of plane system, calculating methods of member strength and stiffness, calculating principles of structure stability, and the ways to obtain structure internal force and displacement.

编 码: CE04025**Code:**CE04025**课程名称:** 流体输配管网**Course Title:** Pumps Fans and Piping System**课程类别:** 学类核心**Course category:** Major Survey Course**学 分:** 3**Credit(s):** 3**开课单位:** 土木工程学院**Offering College/School:** College of Civil Engineering

课程描述: 本课程是建筑环境与能源应用工程专业核心课之一。通过本课程的教学,使学生了解和掌握建筑环境与能源工程专业流体机械、管路系统等方面的基本理论知识、原理和分析方法。

本课程的前导课程为《材料力学》、《流体力学》、《传热学》,学生掌握流体力学、传热学及材料力学基本知识的基础上学习流体机械、管路系统等方面的基本知识、原理与分析方法。本课程又为后续课程《锅炉与能源规划》、《供热工程》、《空气调节》、《空调用制冷技术》、《建筑节能技术》等专业课程的学习提供预备基础。

Course description: Pumps, Fans and Piping is the core course of the major of Building Environment and Energy Engineering. Through the teaching and studying of this course, the undergraduates should understand and master the basic theory, principle and methodology of the course in the field of building environment and energy engineering.

This prerequisite course for this course is Fluids Dynamics, Materials Mechanics and Heat Transfer. The undergraduates should beforehand master the basic theory, principle and methodology of the pumps, fans and piping system. This course will provide the preparatory basic and knowledge for the next courses, such as Boiler Engineering and Energy Plan, Heating Engineering, Air-conditioning Engineering, Refrigeration/Heat Pump and Building Energy Efficiency Technology.

编 码: CE04026

Code:CE04026

课程名称: 建筑环境与测量技术

Course Title: Testing Technology for Building Environment

课程类别: 学类核心

Course category: Major Survey Course

学 分: 3

Credit(s): 3

开课单位: 土木工程学院

Offering College/School: College of Civil Engineering

课程描述: 本课程是建筑环境与能源应用工程学类核心课程, 主要讲授实验数据分析与处理, 仪器仪表选择基本原则及本专业热工参数的常用传感器仪表原理结构, 安装使用原则, 为后续课程<<建筑设备自动化>>打基础。通过本课程的学习, 培养学生在暖通空调系统或设备性能测量及系统设计, 设备运行管理等工作中分析与解决实际问题能力。

Course description: This is a basic course for majors of Constructional Environment and Equipment Engineering, aiming at the students' mastery of the common knowledge of measuring instrument, basic selection principle of the equipment, component of measure system, handling and analysis of error, thus laying a solid foundation for their study of follow-up course such as building automation system. The study of this course makes a special effort to develop the students' ability to analyze and solve practical problems, (fault analysis of instrument, abnormal data analysis, sensor and equipment select).

编 码: CE04034**Code:**CE04034**课程名称:** 工程图学**Course Title:**Engineering Drawing**课程类别:** 学类核心**Course category:**Major Survey Course**学 分:** 4**Credit(s):**4**开课单位:** 土木工程学院**Offering College/School:**College of Civil Engineering

课程描述: 工程图学是为土木工程、工程管理、给水排水工程、建筑环境与设备工程等专业的学生开设的专业基础必修课。主要研究绘制和阅读工程图样的理论和方法。通过本课程的学习和实践环节的技能训练,学生应能够阅读与本专业相关的工程图样,具备绘制工程图样的初步能力,同时培养学生的空间想象能力、创新能力和手工绘图技能,为专业课的学习以及课程设计、毕业设计打下坚实基础。

Course description: This is a basic course for majors of civil engineering, engineering management, water supply and sewage engineering, building environment and equipment engineering.covers the theories and methods of reading and drawing engineering graphics. Through the course study and technical training in practices, the student should have a good ability to read and draw engineering graphics related with majors. The course also prepares a solid foundation for training the ability of spatial imagination, developing the innovation consciousness and drawing skills by hand, and for studying subsequent other courses, fulfilling curriculum projects and the graduation design for students.

编 码: CE04035

Code:CE04035

课程名称: 计算机图形学

Course Title:Computer Graphics

课程类别: 学类核心

Course category:Major Survey Course

学 分: 1

Credit(s):1

开课单位: 土木工程学院

Offering College/School:College of Civil Engineering

课程描述: 本课程通过理论教学和上机实践, 使学生了解计算机图形学原理, 熟练地运用国际通用绘图软件 AutoCAD 绘制专业施工图和三维图形, 并初步了解图形生成及软件二次开发技术, 为课程设计和毕业设计成果数字化打下坚实的基础。

Course description: The course will cover theoretical teaching and performing experiments. The course is intended to enable students to have a preliminary understanding of the computer graphics principles and the graphics generation and the technology of secondary development and to draw construction plans and three-dimensional graphics by AutoCAD skillfully. The course also lays a solid foundation for making digital results of curriculum and graduation design.



编 码: CE04036**Code:**CE04036**课程名称:** 土木工程概论**Course Title:**Introduction to Civil Engineering**课程类别:** 学类核心**Course category:**Major Survey Course**学 分:** 1**Credit(s):**1**开课单位:** 土木工程学院**Offering College/School:**College of Civil Engineering

课程描述: 《土木工程概论》是为土木工程和工程管理专业学生开设的专业基础必修课。旨在拓宽学生的专业知识面，培养学生的专业意识与专业通识能力。通过教学不仅使学生了解土木工程建设业在国民经济中的地位与作用，土木工程所涉及的范围、基本知识和主要问题、成就和发展等，树立宏观的土木工程技术概念与管理观念，而且也加深学生对土木工程专业特点、教学安排和学习方法的了解，培养和引导他们适应大学生活、掌握学习方法，树立对土木工程专业的感情和对土木工程事业的责任心，为培养学生自主学习的能力打好基础。

Course description: An introduction to civil engineering is for civil engineering and engineering management specialty students basic required courses.To broaden the students' professional knowledge, cultivate the students' professional consciousness and professional general ability.Through teaching not only make students understand the civil engineering construction industry in the position and role of the national economy, civil engineering involves the scope, basic knowledge and the main problems, achievement and development, set up the macro concept of civil engineering technology and management concepts, but also deepen the students of civil engineering specialty, the teaching arrangement and the understanding of learning method, cultivating and guide them to adapt to college life, grasp the learning methods, sets up the relationship and the civil engineering major in civil engineering career sense of responsibility, to cultivate students' ability of autonomous learning.

编 码: CE04037**Code:**CE04037**课程名称:** 工程测量**Course Title:**Engineering Survey**课程类别:** 学类核心**Course category:**Major Survey Course**学 分:** 3**Credit(s):**3**开课单位:** 土木工程学院**Offering College/School:**College of Civil Engineering

课程描述: 工程测量是土木工程的专业基础课。通过本课程的学习,使学生掌握测量学的基本知识、基础理论和基本技能,能正确使用常规测量仪器和工具,对测量新仪器和新技术有所了解,并在基本的测绘、测设、计算、用图等方面得到系统的训练,为解决建筑工程、道路工程、桥隧工程等建设中的实际测量问题奠定良好的基础。具体内容包括:测量学基本概念、水准测量、角度测量、距离测量、直线定向、测量误差基本知识、简单控制测量、地形测量、地形图应用、施工测量基本方法、线路测量等。

Course description: This is a basic course for majors of Civil Engineering, aiming at the students' mastery of the basic concepts and theories of engineering survey and the development of their operation techniques, thus laying a solid foundation for their study of follow-up courses such as Constructional Engineering, Highway Engineering, Bridge and Tunnel Engineering and so on. The study of this course develops the students' ability to solve practical survey problems in Civil Engineering. The main contents of this course are the basic approaches and principles of engineering survey, including the basic concepts of survey, levelling survey, angle survey, distance survey, orientation, survey error theories, control survey, topographical survey, application of topographical map, construction survey, highway survey and so on.

编 码: CE04037**Code:**CE04037**课程名称:** 土木工程测量**Course Title:**Surveying in Civil Engineering**课程类别:** 学类核心**Course category:**Major Survey Course**学 分:** 3**Credit(s):**3**开课单位:** 土木工程学院**Offering College/School:**College of Civil Engineering

课程描述: 工程测量是土木工程的专业基础课。通过本课程的学习,使学生掌握测量学的基本知识、基础理论和基本技能,能正确使用常规测量仪器和工具,对测量新仪器和新技术有所了解,并在基本的测绘、测设、计算、用图等方面得到系统的训练,为解决建筑工程、道路工程、桥隧工程等建设中的实际测量问题奠定良好的基础。具体内容包括:测量学基本概念、水准测量、角度测量、距离测量、直线定向、测量误差基本知识、简单控制测量、地形测量、地形图应用、施工测量基本方法、线路测量等。

Course description: This is a basic course for majors of Civil Engineering, aiming at the students' mastery of the basic concepts and theories of engineering survey and the development of their operation techniques, thus laying a solid foundation for their study of follow-up courses such as Constructional Engineering, Highway Engineering, Bridge and Tunnel Engineering and so on. The study of this course develops the students' ability to solve practical survey problems in Civil Engineering. The main contents of this course are the basic approaches and principles of engineering survey, including the basic concepts of survey, levelling survey, angle survey, distance survey, orientation, survey error theories, control survey, topographical survey, application of topographical map, construction survey, highway survey and so on.

编 码: CE04038

Code:CE04038

课程名称: 工程地质

Course Title:Engineering Geology

课程类别: 学类核心

Course category:Major Survey Course

学 分: 2

Credit(s):2

开课单位: 土木工程学院

Offering College/School:College of Civil Engineering

课程描述: 工程地质是土木工程专业的专业基础必修课, 主要介绍土木工程结构场地的矿物与岩石、地质构造、工程地质条件、不良地质现象与防治和工程地质勘察等基础理论知识。

Course description: Engineering geology is a compulsory major course of the students for civil engineering, which mainly introduces the basic theoretical knowledge associated with construction sites of civil engineering, including minerals and rocks, geological structures, geological conditions, prevention and treatment for unfavorable geologic phenomena as well as engineering geological investigation, etc.



编 码: CE04039

Code:CE04039

课程名称: 工程项目经济与管理

Course Title:Economics and Management in Engineering Projects

课程类别: 学类核心

Course category:Major Survey Course

学 分: 2

Credit(s):2

开课单位: 土木工程学院

Offering College/School:College of Civil Engineering

课程描述: 工程项目经济与管理是为土木工程专业学生开设的一门学类核心课。通过本课程的学习,使学生掌握工程经济学、工程估价、工程项目管理的基本理论和方法,具有从事一般工程经济与项目管理工作的能力,并为后续相关课程的学习打下坚实基础。

Course description: This is a major fundamental course for undergraduates in Civil Engineering. Through this course, the students are expected to gain the basic theories and methods in engineering economy, project cost estimation and project management, and achieve the ability to work on economy analysis and management problems of projects. Besides, the students are expected to have a solid background for future relevant courses.



编 码: CE04040**Code:**CE04040**课程名称:** 工程热力学 B**Course Title:**Engineering Thermodynamics B**课程类别:** 学类核心**Course category:**Major Survey Course**学 分:** 4**Credit(s):**4**开课单位:** 土木工程学院**Offering College/School:**College of Civil Engineering

课程描述: 这是一门为建筑环境与能源应用工程专业学生开设的专业基础课, 通过该课程的教学使学生能够掌握热力学的基本概念和基本理论, 为学生学习相关后续专业课程, 如空调制冷技术、暖通空调、热泵技术等, 打下必不可少的基础; 通过工程热力学的整个教学过程逐渐培养学生分析问题、概括问题的能力, 培养学生具有比较熟练的运用热力学原理和方法进行热力系统分析的能力, 对实际工程热力系统中反映出的信息能予以理解和利用; 主要内容为热力系统分析的基本方法和基本原理, 具体包括: 热力性质、热力学第一定律、热力过程、热力学第二定律和熵、水蒸气、湿空气、热力循环等。

Course description: This is a basic course for majors of Building Environment and Energy Engineering , aiming at the students' mastery of the basic concepts and theories of thermodynamics, thus laying a solid foundation for their study of follow-up courses such as refrigeration, HVAC, and heat pump. The study of this course develops the students' ability to analyze and solve practical problems, to analyze the thermodynamic system using thermodynamic method, and to understand and use the information involved in practical thermodynamic system. The main contents of this course are the basic approaches and principles of analyzing the thermodynamic system, including the thermodynamic property, the first law of thermodynamics, thermodynamic process, the second law and entropy, steam, moist air and thermodynamic cycle.

编 码: CE04041**Code:**CE04041**课程名称:** 流体力学 A**Course Title:**Fluid Mechanics A**课程类别:** 学类核心**Course category:**Major Survey Course**学 分:** 4**Credit(s):**4**开课单位:** 土木工程学院**Offering College/School:**College of Civil Engineering

课程描述: 本课程的教学主要分为理论教学和课程实验两个部分。理论教学主要按大班授课,课程指导为小班授课。理论教学内容主要有三部分,即流体静力学与流体动力学及其应用,具体包括绪论、流体静力学、流体动力学基础、水流阻力与水头损失、孔口、管嘴出流和有压管路、气体射流、不可压缩流体动力学、绕流运动、一元气体动力学、相似原理与量纲分析等。

课程实验包括流体静压强、液体相对平衡测定、流线演示、虹吸管水力性能演示、液体动量方程测定、流态测定、管流沿程阻力系数测定、管流突然扩大局部阻力系数测定、水击演示、孔口、管嘴系数测定等。

通过各种教学环节,使学生掌握流体力学的基本理论、基本计算方法和基本实践技能,为学习专业课,从事专业工作和进行科学研究打下一定的基础。

Course description: This course provides students with both necessary theories and experimental techniques of fluid mechanics needed in future study or work. The former is organized both in larger-class for pure theories and in small-class for course instruction. And its principal contents is composed of three parts, namely statics, dynamics and their engineering application, which includes preface, hydrostatics, primary hydrodynamics, flow resistance and headwater loss, orifice and nozzle outflow as well as pressure piping, gas jet flow, incompressible fluid dynamics, flow around a body, one-dimensional aerodynamics, similarity principles, and dimensional analysis.

The latter includes such experiments as measuring hydrostatic pressure and relative liquid balance, demonstrating streamline, illustrating hydraulic property of siphon, measuring fluid momentum equation and fluid regime, measuring resistance coefficient in pipe flow and when abrupt enlargement of pipe, demonstrating water hammer, measuring orifice and nozzle coefficients.

Students are required to know relevant elementary knowledge, understand primary concepts, master principal laws, and do fundamental computations. By means of all teaching stages and techniques for the course, it enable students to master fundamental theories, primary computation techniques and potent performance skills essential to good engineering practice of fluid mechanics in practical applications, and lay solid foundations for learning further other professional courses, doing professional work and even undertaking scientific research.

编 码: CE04042**Code:**CE04042**课程名称:** 传热学 B**Course Title:**Heat transfer**课程类别:** 学类核心**Course category:**Major Survey Course**学 分:** 4**Credit(s):**4**开课单位:** 土木工程学院**Offering College/School:**College of Civil Engineering

课程描述: 传热学是研究热量传递规律及其应用的工程技术学科。是我校机械与运载工程学院、土木工程学院各有关专业的一门必修的主干技术基础课程。本课程不仅为学生学习有关的工程技术课程提供基本的理论知识,而且也为学生以后从事热能的合理利用、热工设备效能的提高及换热器的设计、开发研究等方面的工作打下必要的基础。

Course description: Heat transfer is the study of heat transfer law and its application in engineering. It is the school of civil engineering college, my school of Mechanical & vehicle engineering relevant professional compulsory major basic course. This course not only for students learning engineering courses related to the provision of basic theoretical knowledge, lay the necessary foundation of rational use of energy, but also in the students after thermal equipment efficiency and heat exchanger design, research and development and other work.

编 码: CE04043**Code:**CE04043**课程名称:** 自动控制原理 A**Course Title:** Principle of Automatic Control A**课程类别:** 学类核心**Course category:** Major Survey Course**学 分:** 3**Credit(s):**3**开课单位:** 土木工程学院**Offering College/School:** College of Civil Engineering

课程描述: 本课程是建筑环境与设备工程专业学类核心课。通过本课程的教学,使学生了解和掌握建筑环境与能源系统自动控制的基本理论知识、原理和分析方法。

本课程的前导课程为《高等数学》、《计算机程序设计》、《建筑环境测试技术》,学生先行掌握建筑环境控制参数的测量传感元件及信号形式。本课程又为后续课程《建筑设备自动化》、《暖通空调工程》、《建筑节能技术》等专业课程的学习提供预备基础。

Course description: Principle of Automatic Control is the core course of the major of Building Environment and Applied Energy Engineering. Through the teaching and studying of this course, the undergraduates should understand and master the basic theory, principle and methodology of automatic control system in the field of building environment and applied energy engineering.

This prerequisite course for this course is Advanced Mathematics, Computer Programming, and Test and Measurement Technology for Building Environment. The undergraduates should beforehand master the testing/measuring sensors and their signal types of control parameters in building environment control systems. This course will provide the preparatory basic and knowledge for the next courses, such as Building Equipment Automation, HVAC Engineering and Building Energy Efficiency Technology.

编 码: CE04044**Code:**CE04044**课程名称:** 热质交换原理与设备**Course Title:** Principle and Equipment of Heat Mass Transfer**课程类别:** 学类核心**Course category:** Major Survey Course**学 分:** 3**Credit(s):**3**开课单位:** 土木工程学院**Offering College/School:** College of Civil Engineering

课程描述: 这是一门为建筑环境与设备工程专业学生开设的专业基础课,通过该课程的教学使学生能够掌握热质交换的基本概念和基本理论,为学生学习相关后续专业课程,如空调制冷技术、暖通空调、热泵技术等,打下必不可少的基础;通过热质交换原理与设备的整个教学过程逐渐培养学生分析问题、概括问题的能力,培养学生具有比较熟练的运用热质交换原理和方法进行设备工作分析的能力,对实际工程热质交换设备中反映出的信息能予以理解和利用;主要内容为热质交换设备分析的基本方法和基本原理,具体包括:基本原理、计算及相关设备等。

Course description: This is a basic course for majors of built environment and service engineering, aiming at the students' mastery of the basic concepts and theories of Principle and Equipment of Heat-Mass Exchanging, thus laying a solid foundation for their study of follow-up courses such as refrigeration, HVAC, and heat pump. The study of this course develops the students' ability to analyze and solve practical problems, to analyze the Equipment of Heat-Mass Exchanging, and to understand and use the information involved in process of Heat-Mass Exchanging. The main contents of this course are the basic approaches and principles of analyzing the process of Heat-Mass Exchanging, including the basic theory, calculation, thermodynamic process of the equipment of heat-mass exchanging.

编 码: CE04045**Code:**CE04045**课程名称:** 结构力学 B**Course Title:**Structural Mechanics B**课程类别:** 学类核心**Course category:**Major Survey Course**学 分:** 2**Credit(s):**2**开课单位:** 土木工程学院**Offering College/School:**College of Civil Engineering

课程描述: 结构力学 B 是工程管理专业的一门重要的专业基础课, 以高等数学、工程力学为前导课程, 为施工和管理方面的课程提供力学基础。

本课程主要包括位移法的基本原理、结构分析的渐近方法、移动荷载作用下结构的计算原理等内容。学生需了解超静定结构的计算原理, 理解位移法、力矩分配法及影响线的基本概念, 掌握超静定结构内力计算的多种方法, 并能灵活运用解析法和渐进法于课程设计、毕业设计及工程实践。通过结构力学 B 课程的学习, 可以逐渐培养学生的计算能力、创新能力及解决实际工程结构问题的能力。

Course description: Structural Mechanics B is an important specialized fundamental course for majors of Engineering Management. Its leading courses include advanced mathematics and engineering mechanics. It provides the mechanical foundation for the courses of construction and management.

The main contents of the course are principle of displacement method, asymptotic method for structure analysis, the calculation principle of structure under the moving loadings. The students need to know the calculation principle of statically indeterminate structures; comprehend basic concepts of displacement method, moment distribution method, influence line and its application; grasp different methods to solve the internal forces of statically indeterminate structures and apply them into curriculum design, graduation design and engineering practices with great flexibility. The course study develops the student abilities in calculation, innovation and solving practical engineering problems.

编 码: CE04046**Code:**CE04046**课程名称:** 工程管理概论**Course Title:**Introduction to Project Management**课程类别:** 学类核心**Course category:**Major Survey Course**学 分:** 1**Credit(s):**1**开课单位:** 土木工程学院**Offering College/School:**College of Civil Engineering

课程描述: 工程管理概论是工程管理专业的一门技术基础课,也是一门专业思想教育课。课程目的是使学生通过本课程的学习,认识到土木工程在我国社会主义建设中的地位和作用,当前工程管理的概貌和未来工程管理的发展,了解本专业的培养目标和教学内容。认识到把自己培养成工程管理人才需要学习哪些知识,获得哪些方法,培养哪些能力,树立正确的学习观和工程意识,激发自己的学习潜能,打下良好的思想和方法基础,开拓土木工程及管理的视野,培育土木工程及管理的意识,从而懂得本专业的学习原理,激发持久的学习动力。

Course description: Project management is a technical basic course of engineering management major, is a specialized ideological education. The purpose is to make students through the learning of this course, to realize civil engineering in the position and role of the socialist construction in our country, the current overview of the project management and the future development of engineering management, understand the professional training objectives and teaching content. To realize their need to learn what knowledge into project management talent cultivation, which methods, train the ability of which, set up the correct learning concept and the engineering consciousness, arouse their learning potential, lay a good foundation of thought and method, expand the view of civil engineering and management, cultivating the consciousness of the civil engineering and management, so as to understand the professional study principle, inspire lasting learning motivation.

编 码: CE04047**Code:**CE04047**课程名称:** 建筑力学(1)**Course Title:**Construction Mechanics I**课程类别:** 学类核心**Course category:**Major Survey Course**学 分:** 3**Credit(s):**3**开课单位:** 土木工程学院**Offering College/School:**College of Civil Engineering

课程描述: 这是一门为土木工程学院给排水专业学生开设的技术基础课,通过该课程的教学使学生掌握建筑力学的基本概念、基本原理和基本计算能力,培养学生分析问题、解决问题的能力,并使使学生逐步了解常用结构的受力性能。主要内容包括:平面力系的合成与平衡条件、平面体系的几何组成分析、杆件强度、刚度及稳定性计算的原理与方法、平面杆件结构内力和位移的计算原理和方法等。

Course description: This is a technologically basic course for students majoring in water supply and drainage engineering, aiming at their mastery of the basic concepts, theories and calculating methods of structure analysis. The study of this course develops the students' ability to analyze and solve practical problems, and make them come to understand the mechanical property of structures in common use. The main contents of this course include composition and equilibrium conditions of planar force system, analysis of geometrical stability of plane system, calculating methods of member strength and stiffness, calculating principles of structure stability, and the ways to obtain structure internal force and displacement.

编 码: CE04048**Code:**CE04048**课程名称:** 建筑力学(2)**Course Title:**Construction Mechanics II**课程类别:** 学类核心**Course category:**Major Survey Course**学 分:** 2**Credit(s):**2**开课单位:** 土木工程学院**Offering College/School:**College of Civil Engineering

课程描述: 这是一门为土木工程学院给排水专业学生开设的技术基础课, 通过该课程的教学使学生掌握建筑力学的基本概念、基本原理和基本计算能力, 培养学生分析问题、解决问题的能力, 并使使学生逐步了解常用结构的受力性能。主要内容包括: 平面力系的合成与平衡条件、平面体系的几何组成分析、杆件强度、刚度及稳定性计算的原理与方法、平面杆件结构内力和位移的计算原理和方法等。

Course description: This is a technologically basic course for students majoring in water supply and drainage engineering, aiming at their mastery of the basic concepts, theories and calculating methods of structure analysis. The study of this course develops the students' ability to analyze and solve practical problems, and make them come to understand the mechanical property of structures in common use. The main contents of this course include composition and equilibrium conditions of planar force system, analysis of geometrical stability of plane system, calculating methods of member strength and stiffness, calculating principles of structure stability, and the ways to obtain structure internal force and displacement.

编 码: CE04049**Code:**CE04049**课程名称:** 流体力学 B**Course Title:**Fluid Mechanics B**课程类别:** 学类核心**Course category:**Major Survey Course**学 分:** 4**Credit(s):**4**开课单位:** 土木工程学院**Offering College/School:**College of Civil Engineering

课程描述: 流体力学 B 是给排水专业的一门专业核心课程, 以高等数学、大学物理、理论力学、材料力学为前导课程。

本课程的教学主要分为理论教学和课程实验两个部分。理论教学主要按大班授课, 课程指导为小班授课。理论教学内容主要有三部分, 即水静力学与水动力学及其应用, 具体包括绪论、水静力学、水动力学基础、水流阻力与水头损失、孔口、管嘴出流和有压管路、明渠流动、堰流、渗流、相似原理与量纲分析等。

课程实验包括静水压强、液体相对平衡测定、流线演示、虹吸管水力性能演示、液体动量方程测定、流态测定、管流沿程阻力系数测定、管流突然扩大局部阻力系数测定、水击演示、孔口、管嘴系数测定、明渠流演示等。

通过各种教学环节, 使学生掌握流体力学的基本理论、基本计算方法和基本实践技能, 为学习专业课, 从事专业工作和进行科学研究打下一定的基础。

Course description: Fluid Mechanics, an important course for the students of Building environment and Fluid Mechanics A is one of the core professional courses for the students of Building environment and energy engineering application major. It requires that students should have mastered the preliminary courses such as Advanced Mathematics, College Physics, Theoretical Mechanics, Material Mechanics.

This course provides students with both necessary theories and experimental techniques of fluid mechanics needed in future study or work. The former is organized both in larger-class for pure theories and in small-class for course instruction. And its principal contents is composed of three parts, namely statics, dynamics and their engineering application, which includes preface, hydrostatics, primary hydrodynamics, flow resistance and headwater loss, orifice and nozzle outflow as well as pressure piping, gas jet flow, incompressible fluid dynamics, flow around a body, one-dimensional aerodynamics, similarity principles, and dimensional analysis.

The latter includes such experiments as measuring hydrostatic pressure and relative liquid balance, demonstrating streamline, illustrating hydraulic property of siphon, measuring fluid momentum equation and fluid regime, measuring resistance coefficient in pipe flow and when abrupt enlargement of pipe, demonstrating water hammer, measuring orifice and nozzle coefficients.

Students are required to know relevant elementary knowledge, understand primary concepts, master principal laws, and do fundamental computations. By means of all teaching stages and techniques for the course, it enable students to master fundamental theories, primary computation techniques and potent performance skills essential to good engineering practice of fluid mechanics in practical applications, and lay solid foundations for learning further other professional courses, doing professional work and even undertaking scientific research.

编 码: CE04050**Code:**CE04050**课程名称:** 水分析化学**Course Title:**Water Analytical Chemistry**课程类别:** 学类核心**Course category:**Major Survey Course**学 分:** 3**Credit(s):**3**开课单位:** 土木工程学院**Offering College/School:**College of Civil Engineering

课程描述: 水分析化学是一门为给水排水专业学生开设的专业基础课,通过该课程的教学使学生能够掌握水分析化学的基本概念、基本理论和基本实验操作技能,为学生学习相关后续专业课程打下必不可少的基础;注重培养学生严谨的科学态度,培养学生独立分析问题和解决分析化学中实际问题的能力;强化并树立准确“量”的观念。主要内容为分析化学的基本方法和基本概念和基本原理,具体包括:酸碱滴定法、络合滴定法、沉淀滴定法、氧化还原滴定法和电化学分析法、吸收光谱法、色谱法和原子光谱法等。

Course description: Water Analytical Chemistry is a basic course for majors of water and wastewater engineering , aiming at the students' mastery of the basic concepts and theories of water analytical chemistry and the basic experimental skills, thus laying a solid foundation for their study of follow-up courses. The study of this course trains the students' rigorous scientific approach and develops the students' ability to analyze and solve practical problems and sets up the conception of "quantity". The main contents of this course are the basic approaches and principles of analytical chemistry, including acid-base titration, complexation titration, precipitation titration, oxidation-reduction titration, electrochemistry analysis, absorption spectrophotometry, chromatography and atomic spectrophotometry.

编 码: CE04052	Code:CE04052
课程名称: 给排水科学与工程概论	Course Title:Introduction to Water and Wastewater Engineering
课程类别: 学类核心	Course category:Major Survey Course
学 分: 1	Credit(s):1
开课单位: 土木工程学院	Offering College/School:College of Civil Engineering

课程描述: 《给排水科学与工程概论》是为大一新生在专业课学习之前开设的有关给排水科学与工程专业的概论课。该课系统概要地介绍给排水科学与工程的历史与专业内涵、相关的专业主干知识体系、基本概念和重要的工艺流程。主要包括: 给排水科学与工程内涵, 其与水工业行业及其它相关专业的关系; 给排水科学与工程简史; 水资源的利用与保护概要; 给水排水管网系统概论; 水质工程概论; 建筑给排水工程概论。

Course description: 《Introduction of Water and Wastewater Science and Engineering》is a introduction course about the Water and Wastewater Science and Engineering (WWSE). It is specially designed for freshmen before learning their major courses. It gives an systematical overview on WWSE history and basics, required major knowledge system, important concepts and main treatment processes. The main contents include: the WWSE basics and its relationship with water industry and other related industries; brief history of WWSE; outline of utilization, protection and management of water resource; overview on water and wastewater pipe system, basics of water quality control engineering, introduction of water and wastewater engineering for buildings.

编 码: CE05006**Code:**CE05006**课程名称:** 建筑给水排水工程**Course Title:**Building Water Supply and Sewerage Engineering**课程类别:** 专业核心**Course category:**Required Core Course**学 分:** 3**Credit(s):**3**开课单位:** 土木工程学院**Offering College/School:**College of Civil Engineering

课程描述: 这是给水排水工程专业的一门主干专业课。它的任务是通过授课和教学实践环节,使学生系统的学习并掌握建筑给水排水体系中的基本理论、设计原理和方法,初步掌握基本工程技术知识及设计图绘制技能,具有设计中等复杂程度建筑给水、排水工程的能力,培养学生具备建筑给水排水工程设计、管理及科研的基本能力。

Course description: This is the water supply and drainage engineering of a trunk Courses. Its mission is to link through the medium of instruction and teaching practice, students learn and master the system of building water supply system of the basic theories, principles and methods of design, basic engineering and technical knowledge of the preliminary master and the design drawing skills, design of moderate complexity with building water supply, drainage capacity, develop the quality of building water supply and drainage engineering, management and basic scientific research capacity.

编 码: CE05007**Code:**CE05007**课程名称:** 水工程经济与概
预算**Course Title:**Economics and Budgets for Water and
wastewater Engineering**课程类别:** 专业核心**Course category:**Required Core Course**学 分:** 3**Credit(s):**3**开课单位:** 土木工程学院**Offering College/School:**College of Civil Engineering

课程描述: 本课程是一门实用性很强的课程,主要包括技术经济分析与概预算两部分内容。通过本课程的教学,学生应该熟练掌握给水排水技术经济分析的基本原则、评价指标与方法、项目财务评价与国民经济评价的内容与方法,给水排水工程概预算的方法、步骤,具备工程经济分析与概预算的基本能力。

Course description: The course , including technical&economic analysis and budget estimate, is a hingly practical subject. After learning the course , the students are asked to master fundametal principles, evaluation indicators and methods of water supply and drainage technical and economic analysis, contents and methods of financial affairs evaluation and national economic evalution, methods and procedures of budget estimate for water supply and drainage engineering.The instruction goal is to develop basic skills of engineering economic analysis and budget estimate.

编 码: CE05009	Code: CE05009
课程名称: 水工艺设备、仪表与控制	Course Title: Equipments, Instruments and Control for Water and wastewater Engineering
课程类别: 专业核心	Course category: Required Core Course
学 分: 3	Credit(s): 3
开课单位: 土木工程学院	Offering College/School: College of Civil Engineering

课程描述: 本课程是为给排水科学与工程专业本科生开设的一门专业核心课程。通过本课程的教学,学生应系统地掌握与水工艺设备的制造、设计、运行管理等有关的基本知识;了解常用水工艺设备的基本结构、工作原理和工艺性能;熟悉与水工程有关的仪器仪表和自动化的基本知识,以及自动化技术在城市水工程中的各种应用,从而使学生初步具备水工艺设备开发、设计、选型和运行管理以及进一步研究水工程自动化技术的能力。

Course description: The course is a core course of professional for undergraduate students of Water Supply and Drainage Science and Engineering. After teaching/learning the course, the students are asked to systematically master basic knowledge related to manufacture, design and operational management of water processing equipments; to be familiar with equipments and instruments used in water engineering, fundamental knowledge of automation, and various uses of automation technology in water engineering. The instruction goal is to cultivate the abilities of students to water-processing device development, design, selection and operational management, and to further study water-engineering automation technology.

编 码: CE05010**Code:**CE05010**课程名称:** 运筹学**Course Title:**Operations Research**课程类别:** 专业核心**Course category:**Required Core Course**学 分:** 3**Credit(s):**3**开课单位:** 土木工程学院**Offering College/School:**College of Civil Engineering

课程描述: 运筹学是为工程管理专业学生开设的专业核心课。本课程主要向学生系统讲授线性规划、运输和指派问题、整数规划等运筹学模型的特点、应用范围及解决方法。通过本课程的学习,使学生掌握运筹学的基本理论和方法,初步培养学生根据实际问题建立运筹学模型能力、逻辑推理能力和管理决策时优化的思维方式。

Course description: This is a major core course for undergraduate program in construction management. The course covers the features, solution methods, and application of the operation research models including linear programming, transportation and assignment problem, network optimization, etc. Through this course, the students are expected to acquire the fundamental theories and methods in operations research, and the ability to build operation research models for real-world problems. Besides, they are expected to achieve the optimization way of addressing management decision problems, and enhance the logical reasoning ability.

编 码: CE05012**Code:**CE05012**课程名称:** 工程造价**Course Title:**Cost Management of Engineering Projects**课程类别:** 专业核心**Course category:**Required Core Course**学 分:** 3**Credit(s):**3**开课单位:** 土木工程学院**Offering College/School:**College of Civil Engineering

课程描述: 本课程要求学生能够应用现行预算定额: 正确列出各分部分项工程名称。并能计算其工程量, 确定定额直接费; 准确确定工程类别, 准确选用取费标准; 计算出完整的工程造价。具有独立的完成完整单位工程施工图预算的能力。《建设工程工程量清单计价规范》已经颁布执行, 但我国仍处于“清单计价”和“定额计价”并用的时期。本课程对建筑与装饰装修工程概预算和工程量清计价的基本知识和原理进行了论述, 并介绍了清单计价在建筑工程和装饰装修工程分部分项工程中的应用。通过这门课程的学习, 让学生清楚地理解和应用规范, 促进工程造价体系的进步。通过学习, 掌握建筑工程计量, 定额编制原理和使用方法, 采用工程计价两种方式进行工程预算或编制标底, 进行工程结算、竣工决算。

Course description: This course deals with the basic principle of estimating the time and cost of construction projects. To prepare an estimate the estimator must perform a careful and thorough analysis of the work to be performed. The analysis includes the type and quantity of work, type and size of equipment to install the work, and other job-site conditions that are unique to the project that can impact the time and cost of construction. The purpose of this course is to enable the students to gain fundamental knowledge of estimating the cost of projects to be constructed. Experienced estimators agree that the procedures used for estimating vary from company to company, and even among individuals within a company. Although there are variations, contained in this book presents the fundamental concepts to assist the students in understanding the estimating process and procedures developing his or her own estimating procedures.

编 码: CE05021**Code:**CE05021**课程名称:** 建筑环境学**Course Title:**Built Environment**课程类别:** 专业核心**Course category:**Required Core Course**学 分:** 3**Credit(s):**3**开课单位:** 土木工程学院**Offering College/School:**College of Civil Engineering

课程描述: 建筑环境学是建筑环境与能源应用工程专业的一门专业基础课。在介绍建筑外环境、建筑热湿环境、热舒适环境、室内空气环境、建筑光环境和建筑声环境的同时，还从人的生理和心理角度出发，分析介绍了人的健康舒适要求与室内、外环境质量的关系，为创造适宜的建筑室内环境与室外微环境提供了理论依据。

Course description: Built environment is a professional basic course in building environment and energy engineering. The building's exterior environment, building thermal environment, thermal comfort, indoor air environment, light environment of building and building acoustic environment at the same time, also from the physiological and psychological point of view, analyzed the relationship between human health and comfort requirements and indoor, environmental quality, and provides a theoretical basis for the creation of interior architecture environment and the outdoor suitable microenvironment.

编 码: CE05022	Code: CE05022
课程名称: 空调用制冷技术	Course Title: Refrigerating Technology for Air Conditioner
课程类别: 专业核心	Course category: Required Core Course
学 分: 3	Credit(s): 3
开课单位: 土木工程学院	Offering College/School: College of Civil Engineering

课程描述: 制冷课程是建筑环境与设备工程专业的一门重要专业必修课。本课程任务是为了学生拓宽专业方向, 增加知识面, 适应人才市场就业的需要。通过本课程的学习, 使学生掌握人工制冷方法的基本理论知识, 以目前空调工程中最常用的蒸气压缩式制冷为重点; 要求掌握蒸气压缩式制冷装置基本原理、性能、构造; 根据空调和生产工艺的要求, 能进行制冷设备及管路的选择计算; 具有空调用制冷机房工艺设计的初步能力; 了解空调范围内常用的空调机组、冷水机组、LiBr 吸收式及蒸气喷射式制冷机的工作原理及设备特点; 了解空调用制冷技术发展趋势。使学生初步具有分析和解决空气调节用制冷技术中实际问题的能力。

Course description: Refrigeration Technology for Air Conditioning course is an important professional course for the major of Built Environment And Equipment Engineering. The mission of this course is to broaden the professional orientation, increase the professional knowledge and meet the needs of employment in talent market for our students. Through the course, students may master the basic theory of the artificial refrigeration method, such as the vapor compression refrigeration which is the most commonly used at present. It requires the students to learn the basic principles, performance and structure about the installation and calculate for the choice of the refrigeration equipments and pipes according to requirements of air conditioning and production. Also they will have the preliminary capacity to design the engine room used for refrigeration and understand the air-conditioning unit, chillers, and the principle and features of LiBr absorption-type refrigerating unit and steam jet refrigerating unit that used commonly in the range of air conditioning. Meanwhile, our students could realize the developing trends about the air-conditioning refrigeration technology. So that they will have the initial capacity to analyze and solve the practical problems in the air-conditioning refrigeration technology.

编 码: CE05025**Code:**CE05025**课程名称:** 建筑设备自动化系统**Course Title:**Architecture Equipment Automation System**课程类别:** 专业核心**Course category:**Required Core Course**学 分:** 3**Credit(s):**3**开课单位:** 土木工程学院**Offering College/School:**College of Civil Engineering

课程描述: 这是一门建筑环境与能源应用专业的专业核心课程, 通过该课程的学习使学生对建筑设备及其自动化的内容、范围及实施要求等有较全面了解; 能够提出本专业自动控制方案或自动控制策略, 提出具体控制要求; 熟悉并掌握自动控制流程图; 配合自动控制人员进行自动控制设计(包括传感器选择、仪表或设备选型)和调试; 了解智能建筑的相关知识以及目前国内智能建筑概况。在教学过程中培养学生分析问题能力, 综合运用知识的能力。

Course description: This is a nuclear course for majors of constructional Environment and Equipment Engineering, aiming at the students' comprehensive understanding of the equipment and the content、extent and claim of it, ability to advance the plan and tactic of automatic control, ability to advance the require of control, being familiar with the flow chart of the automatic control, ability to work with the Automation Engineers for automatic control design(including the sensor select, instrument or device selection) and debugging, keep abreast of current development in Intelligent Building at home and abroad. The study of this course develops the students' ability to analyze and solve practical problems and ability to use knowledge synthetically.

编 码: CE05026**Code:**CE05026**课程名称:** 供热工程**Course Title:**Heat Supply Engineering**课程类别:** 专业核心**Course category:**Required Core Course**学 分:** 3**Credit(s):**3**开课单位:** 土木工程学院**Offering College/School:**College of Civil Engineering

课程描述: 《供热工程》是建筑环境与设备工程专业的专业核心课程。以工程热力学、传热学和流体力学为前导课程，为毕业设计方面课程学习提供理论基础和技术背景。

本课程主要包括供热系统热负荷计算、水力计算、供热系统热源形式、集中供热系统和系统运行调节等内容，学生需了解供热系统国内外应用现状及发展方向，理解系统构成各基本要素，掌握热负荷计算及水力计算，并能灵活运用所学知识进行系统方案选择、系统设计及运行调节。

通过学习本课程，学生学会供暖与集中供热运行管理的基本知识，获得目前常用的热水或蒸汽作为热媒的室内供暖和集中供热系统的基本原理和基本知识；锻炼和提升一般民用和工业建筑供暖系统的设计能力。

Course description: Space heating is a required course in building environment and equipment engineering. Its prerequisites include Engineering Thermal Dynamics, Heat Transfer and Fluid Mechanics.

The main content of the course includes heating load calculation, hydraulic calculation, heating source selection, centralized heating system and heating system operation and adjustment, etc. Students are required to understand the background and future direction of heating system applications, different components of heating systems, heating load calculation and hydraulic calculation. They are further required to use these knowledge to design operate and adjust heating systems.

With taking this course, students will acquire the fundamental knowledge of water/steam space heating system. They will also gain basic knowledge about the operation and management of heating systems. Moreover, students will demonstrate the ability to properly design civil/industrial building heating system in order to maintain occupant comfort and health.

编 码: CE05034**Code:**CE05034**课程名称:** 混凝土结构设计原理**Course Title:** Principles of Design of Concrete Structures**课程类别:** 专业核心**Course category:** Required Core Course**学 分:** 3**Credit(s):**3**开课单位:** 土木工程学院**Offering College/School:** College of Civil Engineering

课程描述: 混凝土结构设计原理是土木工程专业的一门重要的专业技术基础课, 主要包括钢筋混凝土结构的基本概念, 组成材料及构件的力学性能, 钢筋混凝土结构的分析和设计基本方法。本课程的知识是力学在钢筋混凝土这一主要现代工程结构分析和设计中的工程应用。通过学习本课程, 可以加深对材料和力学的理解, 初步掌握解决实际问题的工程学方法论, 同时为学习后续专业课程、毕业设计、以及从事土木工程领域相关工作打下坚实的基础。

Course description: As a basic specialty course, Principle of Concrete Structure Design focuses on the fundamental concepts of reinforced concrete structures, mechanical properties of the compositing materials, mechanical behavior of structural components, and the methods used in analysis and design of reinforced concrete structures. The fundamental knowledge introduced is the engineering application of mechanics in the analysis and design of reinforced concrete structures. Through this course, the students should deepen their understanding of materials and mechanics, and learn the methodology for solving engineering problems. The course also serves as a milestone course for further studies in the follow-up professional courses, graduation design and future practices in civil engineering.

编 码: CE05035**Code:**CE05035**课程名称:** 钢结构设计原理**Course Title:**Design Principle of Steel Structures**课程类别:** 专业核心**Course category:**Required Core Course**学 分:** 3**Credit(s):**3**开课单位:** 土木工程学院**Offering College/School:**College of Civil Engineering

课程描述: 本课程主要涉及钢结构材料、焊缝和螺栓连接设计方法与受弯构件、轴向受压构件和压弯、拉弯构件的基本理论和设计方法。通过课程学习,使学生掌握钢结构基本构件设计的特点和现行规范的背景,掌握钢结构构件设计的基本力学理论和基本知识,具有钢结构基本构件及连接的设计能力。最后,通过普通钢屋架课程设计,以达到理解大多设计规范所遵循的基本原理,从而掌握设计方法。

Course description: This is a basic course for majors of building engineering. The overall objective of the course is to provide students with the basic design theory and knowledge of the steel components and connections, let the students understand the character of design of steel components and connections and the background of the current design code, master the basic design method and principle of steel structure. The contents mainly include the constructional steel, weld and bolted connections, axially loaded members, flexural members, and the member subjected to combined axial and flexural loadings.

编 码: CE05036**Code:**CE05036**课程名称:** 基础工程**Course Title:**Foundation Engineering**课程类别:** 专业核心**Course category:**Required Core Course**学 分:** 3**Credit(s):**3**开课单位:** 土木工程学院**Offering College/School:**College of Civil Engineering

课程描述: 本课程的教学应使学生对土木工程的常用基础有所掌握,对相关的基坑工程和地基处理方法以及区域性地基有一般了解。教学中要求学生熟练掌握天然地基上无筋扩展基础和钢筋混凝土浅基础的设计方法,掌握深基础中竖向荷载下桩基(单、群桩基)的计算理论、设计方法和测试及检测原理;掌握深基坑工程的降水与支护基本方法;各种地基处理方法的基本原理和区域性地基的特点;对沉井基础的原理及设计、水平荷载下桩的常用计算理论和设计方法、以及各种地基处理方法的详细设计和较深入探讨区域性地基等。

Course description: This course aims to give students a broad understanding of the common foundations in civil engineering as well as a general understanding of foundation excavation engineering, ground treatment and regional foundation. After completing this course, students should master the following contents: (a) design method of non-reinforced spread foundation and reinforced concrete shallow foundation in natural foundation; (b) computing theory, design method and testing/detecting principle of pile foundation under vertical and horizontal loads; (c) dewatering and supporting methods of the deep foundation excavation engineering; (d) fundamental principles of the caisson foundation and various ground treatment methods as well as those detailed design approaches; and (e) characteristics of regional foundations.

编 码: CE05060**Code:**CE05060**课程名称:** 混凝土结构设计原理**Course Title:**Design Principle of Concrete Structure**课程类别:** 专业核心**Course category:**Required Core Course**学 分:** 4**Credit(s):**4**开课单位:** 土木工程学院**Offering College/School:**College of Civil Engineering

课程描述: 混凝土结构设计原理是土木工程专业的一门重要的专业技术基础课, 主要包括钢筋混凝土结构的基本概念, 组成材料及构件的力学性能, 钢筋混凝土结构的分析和设计基本方法。本课程的知识是力学在钢筋混凝土这一主要现代工程结构分析和设计中的工程应用。通过学习本课程, 可以加深对材料和力学的理解, 初步掌握解决实际问题的工程学方法论, 同时为学习后续专业课程、毕业设计、以及从事土木工程领域相关工作打下坚实的基础。

Course description: As a basic specialty course, Principle of Concrete Structure Design focuses on the fundamental concepts of reinforced concrete structures, mechanical properties of the compositing materials, mechanical behavior of structural components, and the methods used in analysis and design of reinforced concrete structures. The fundamental knowledge introduced is the engineering application of mechanics in the analysis and design of reinforced concrete structures. Through this course, the students should deepen their understanding of materials and mechanics, and learn the methodology for solving engineering problems. The course also serves as a milestone course for further studies in the follow-up professional courses, graduation design and future practices in civil engineering.

编 码: CE05068**Code:**CE05068**课程名称:** 土力学**Course Title:**Soil Mechanics**课程类别:** 专业核心**Course category:**Required Core Course**学 分:** 3**Credit(s):**3**开课单位:** 土木工程学院**Offering College/School:**College of Civil Engineering

课程描述: 讲授土力学的基础知识和基本原理。使学生通过该课程的学习,了解土的成因和分类方法,熟悉土的基本物理力学性质,掌握地基应力和变形、地基承载力、土压力计算方法及土坡稳定分析方法,掌握一般土工实验方法,达到能应用土力学的基本原理和方法解决各专业方向实际工程中的稳定和变形问题。

Course description: Soil mechanics is a branch of engineering mechanics that describes the basic knowledge and principles of soils. After completion of soil mechanics course, students should understand the formation process of soil, soil classification methods and the basic physical mechanical properties of soil, then to master the general experiments methods of soil, the calculation methods of stress, the ground deformation under loading conditions, bearing capacity of foundations, lateral stresses in soils, stability of soil slope. Furthermore, students should also have the capacity to solve various kinds of stability and deformation problems in practical engineering with the principles and calculation methods of soil mechanics.

编 码: CE05069	Code:CE05069
课程名称: 流体力学	Course Title:Fluid Mechanics
课程类别: 专业核心	Course category:Required Core Course
学 分: 3	Credit(s):3
开课单位: 土木工程学院	Offering College/School:College of Civil Engineering
课程描述: 流体力学是土木工程专业的一门专业核心课程, 以高等数学、大学物理、理论力学、材料力学为前导课程。	

本课程的教学主要分为理论教学和课程实验两个部分。理论教学主要按大班授课, 内容主要有三部分, 即水静力学与水动力学及其应用, 具体包括绪论、水静力学、水动力学基础、水流阻力与水头损失、有压管路、明渠流动、渗流、相似原理与量纲分析等。

课程实验包括静水压强测定、流线演示、虹吸管水力性能演示、液体动量方程测定、流态测定、管流沿程阻力系数测定、管流突然扩大局部阻力系数测定等。

通过各种教学环节, 使学生掌握流体力学的基本理论、基本计算方法和基本实践技能, 为学习专业课, 从事专业工作和进行科学研究打下一定的基础。

Course description: Fluid Mechanics is one of the core professional courses for the Major of Civil Engineering. It requires that students should have mastered the preliminary courses such as Advanced Mathematics, College Physics, Theoretical Mechanics, Material Mechanics.

This course provides students with both necessary theories and experimental techniques of fluid mechanics needed in future study or work. The former is organized both in larger-class for pure theories. And its principal contents is composed of three parts, namely statics, dynamics and their engineering application, which includes preface, hydrostatics, primary hydrodynamics, flow resistance and headwater loss, as well as pressure piping, open channel flow, seepage flow, similarity principles, and dimensional analysis.

The latter includes such experiments as measuring hydrostatic pressure, demonstrating streamline, illustrating hydraulic property of siphon, measuring fluid momentum equation and the state of flow, measuring resistance coefficient in pipe flow and when abrupt enlargement of pipe,.

Students are required to know relevant elementary knowledge, understand primary concepts, master principal laws, and do fundamental computations. By means of all teaching stages and techniques for the course, it enable students to master fundamental theories, primary computation techniques and potent performance skills essential to good engineering practice of fluid mechanics in practical applications, and lay solid foundations for learning further other professional courses, doing professional work and even undertaking scientific research.

编 码: CE05070**Code:**CE05070**课程名称:** 防灾工程学**Course Title:**Disaster Prevention Engineering**课程类别:** 专业核心**Course category:**Required Core Course**学 分:** 3**Credit(s):**3**开课单位:** 土木工程学院**Offering College/School:**College of Civil Engineering

课程描述: 防灾工程学是土木工程专业的专业核心课程,以理论力学、材料力学、结构力学、土力学、混凝土结构设计原理等为前导课程,为工程结构设计、建筑结构抗震设计等方面课程学习提供知识基础。本课程主要包括防灾工程学的发展概况、土木工程各种相关灾害(包括地震灾害、风灾、火灾、爆炸灾害、洪水、地质灾害)的特点及对工程结构造成的破坏、各种灾害的防灾减灾对策、灾害应急管理 with 应急救援等内容。学生需要了解各种灾害发生的原因,理解各种灾害的主要特征和对工程结构造成的破坏,掌握工程结构防灾设计的基本概念、设计原理。通过学习本课程,学生学会工程结构防灾设计原理和初步方法,锻炼和提升运用防灾减灾设计原则和设计方法对工程结构进行防灾减灾初步设计的能力。

Course description: Disaster Prevention Engineering is a professional core course of the subject of Civil Engineering. Taking theoretical mechanics, mechanics of materials, structural mechanics, soil mechanics, and principles of design of concrete structures as pre-required courses, this course provides theoretical basis for forthcoming design of engineering structure and seismic resistance design of building structure. In this course, the history and development of disaster prevention engineering, the features of civil engineering related disasters (including earthquake, windstorm, fire, blast, flood, geologic hazards) and their impact on engineering structures, disaster prevention and mitigation measures, disaster emergency management and emergency rescue are introduced. Students need to know the causes of disasters, understand the features of disasters and their impact on engineering structures, and grasp basic concept and principles of disaster prevention design. Through this course, students should understand the theory and method of disaster prevention design. Their capabilities of disaster prevention design of engineering structures using the theory and method learned in this course will be trained and improved.

编 码: CE05071

Code:CE05071

课程名称: 土木工程试验与检测

Course Title:Test and Inspection of Civil Engineering

课程类别: 专业核心

Course category:Required Core Course

学 分: 2

Credit(s):2

开课单位: 土木工程学院

Offering College/School:College of Civil Engineering

课程描述: 本课程主要讲授结构试验原理, 包括结构静载试验、结构动载试验、结构非破损检测和结构模型试验等内容, 涵盖混凝土结构、钢结构和砌体结构等结构或构件的试验设计和试验方法。是土木工程专业核心课程之一。

Course description: This course mainly imparts relevant contents of structural static test, dynamic test, non-destructive inspection and model test etc. The course includes test design and test methods of structures or members covering concrete structure, steel structure and masonry structure etc, which is the compulsory course for the students who major in civil engineering, road engineering, bridge engineering and soil engineering.



编 码: CE05072**Code:**CE05072**课程名称:** 空气调节**Course Title:**HVAC**课程类别:** 专业核心**Course category:**Required Core Course**学 分:** 3**Credit(s):**3**开课单位:** 土木工程学院**Offering College/School:**College of Civil Engineering

课程描述: 空调课程是建筑环境与设备工程专业的一门重要专业必修课。本课程任务是为了学生拓宽专业方向,增加知识面,适应人才市场就业的需要。通过本课程的学习,使学生掌握空气调节的基本理论知识,具体包括湿空气的物理性质及其焓湿图、空调负荷计算、空气的热湿处理、空气调节系统、空气的净化与质量控制、空调房间的空气分布的知识及一般民用和工业建筑空调系统进行设计和运行调节所需要的基本知识;同时对空调技术方面的新理论、新技术和新设备有所了解,使学生初步具有分析和解决空气调节技术中实际问题的能力。

Course description: This is an important professional course for the major of Built Environment And Equipment Engineering. The mission of this course is to broaden the professional orientation, increase the professional knowledge and meet the needs of employment in talent market for our students. Through the course, students may master the basic theory of air-conditioning, including the physical properties and the enthalpy-humidity chart of the air, the load calculation of the air-conditioning system, the heat-humidity treatment to the air, air-conditioning system, the purification and quality control of the air, the air's distribution in the air-conditioned room. Also it contents the basic knowledge which is needed to the design and running operation for the general civil and industrial air-conditioning systems. Meanwhile, the students could understand new theories, new technology and new equipments about the air-conditioning technology. So that they will have the initial capacity to analyze and solve the practical problems in the air-conditioning technology.

编 码: CE05073**Code:**CE05073**课程名称:** 暖通空调工程设计方法**Course Title:**HVAC Design Method**课程类别:** 专业核心**Course category:**Required Core Course**学 分:** 2**Credit(s):**2**开课单位:** 土木工程学院**Offering College/School:**College of Civil Engineering

课程描述: 暖通空调工程设计方法是建筑环境与能源应用工程专业本科生必修的专业课程。该课程主要讲述暖通空调主要设备及系统的特性、暖通空调工程设计的程序、步骤、方法以及应遵守的设计规范和标准等。开设本课程的目的是让学生通过该课程的学习掌握暖通空调工程设计的一般方法及相关注意事项。

Course description: The Method for HVAC design is the compulsory course for Building Environment and energy Engineering undergraduate majors,focusing on the HVAC equipment and system characteristics, HVAC project design procedures, steps, and methods, as well as compliance with design specifications and standards. The purpose of this course is to make the students to master the general HVAC design methods and related considerations through studying the course.

编 码: CE05074**Code:**CE05074**课程名称:** 建筑能源供应系统**Course Title:**Building Energy Supply System**课程类别:** 专业核心**Course category:**Required Core Course**学 分:** 2**Credit(s):**2**开课单位:** 土木工程学院**Offering College/School:**College of Civil Engineering

课程描述: 建筑能源供应系统是建筑环境与能源应用工程专业的一门专业核心课程，与能源有效应用和建筑节能技术紧密相关。本课程将对与建筑相关的各种能源供应系统，包括智能电网、分布式冷热电联产技术、建筑一体化太阳能光伏/光热系统、能源储存技术、建筑能量供应与能耗模拟等方面的前沿技术进行介绍，使学生对建筑物主要能源供应系统的基本原理、设计方法、运行控制以及模拟优化有一个全面的了解和认识，从而为建筑物能源供应系统的合理设计与优化提供理论依据。

Course description: Building energy-supply systems is a professional core course of the subject of Building Environment and Energy Engineering (BEEE). It is closely related to emerging building energy-efficient technologies. In this course, various of building energy-supply systems, including smart grid, distributed combined cooling, heating and power (CCHP), building integrated PV/T systems, energy storage technologies, building energy production and consumption simulations would be introduced to ensure students thoroughly understand the fundamental principles, design methods, operational control as well as simulation & optimization of various primary energy-supply systems in buildings, such that to provide a theoretical basis for reasonable design and optimization of building energy-supply systems.

编 码: CE05075

Code:CE05075

课程名称: 建筑学原理

Course Title:Principles of Architecture

课程类别: 专业核心

Course category:Required Core Course

学 分: 3

Credit(s):3

开课单位: 土木工程学院

Offering College/School:College of Civil Engineering

课程描述: 本课程主要涉及民用与工业建筑的建筑原理和设计方法。重点通过阐述建筑设计与建筑构造的基本原理和详细做法,使学生建立起完整的房屋建筑概念,掌握建筑设计从整体到细部,从平面到空间的设计程序和方法,具有从事一般工业与民用建筑设计的初步能力。

Course description: This course deals with the basic principle and design methods of industrial and civil architecture. Through studying the basic principle and application of knowledge of architectural design and building construction, the students can establish an integral concept of the building construction and have a basic master of design method and design process of the industrial and civil architecture, from whole to details and from the plane to space. Finally, students are expected to have the ability to design the common industrial and civil architecture.

编 码: CE05076**Code:**CE05076**课程名称:** 工程施工技术**Course Title:**Engineering Construction Technology**课程类别:** 专业核心**Course category:**Required Core Course**学 分:** 4**Credit(s):**4**开课单位:** 土木工程学院**Offering College/School:**College of Civil Engineering

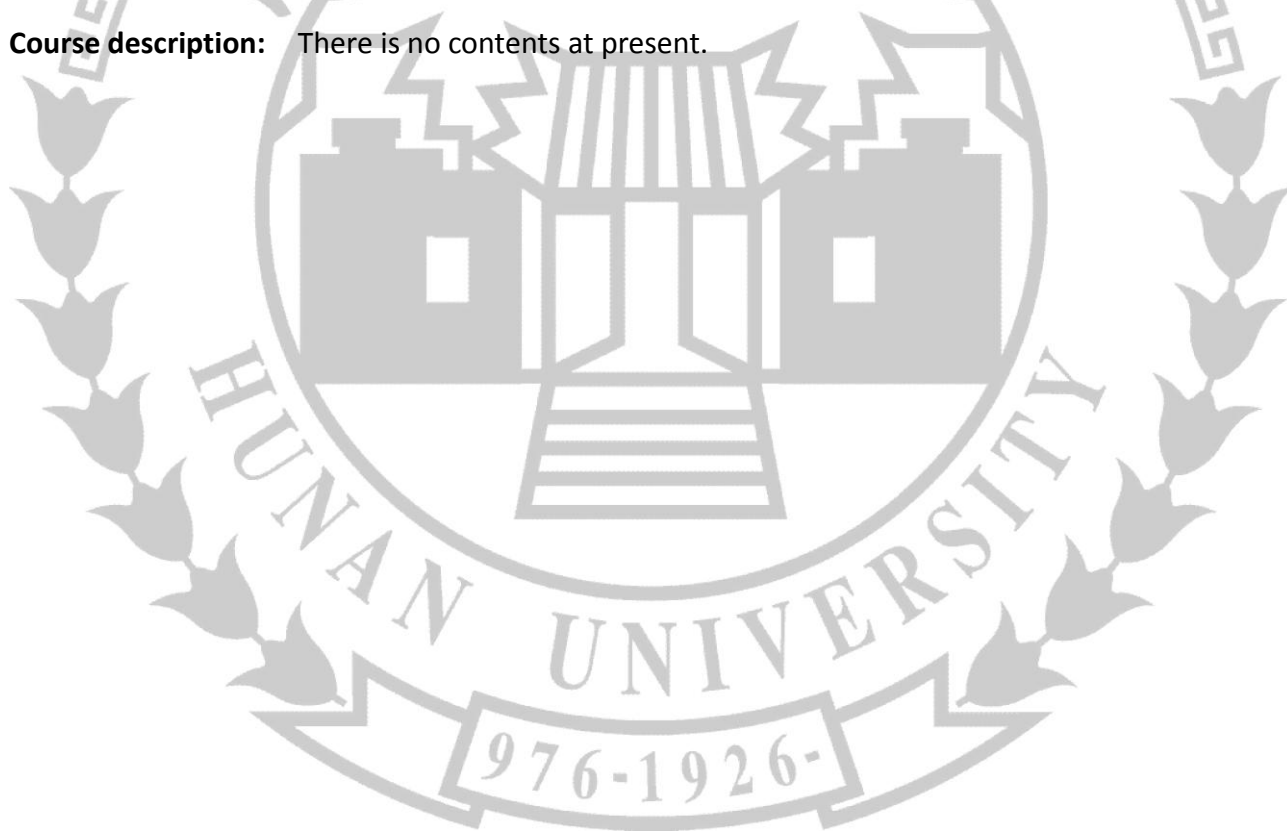
课程描述: 工程施工技术是工程管理专业的一门实践性强、综合性大、涉及知识面广的专业课程。课程包括土石方工程、基础工程、砌体工程、混凝土结构工程、房屋结构安装工程、桥梁工程、道路工程、防水工程、装饰工程,共 9 章内容。重点阐述了各类工程施工工艺及工艺原理、施工方案及方法,以及保证工程质量和施工安全等有关技术措施,力求反映土木工程施工领域国内外的先进科学技术、先进工艺及管理水平。

Course description: Civil engineering construction is a strong practical, comprehensive and involves extensive knowledge courses of engineering management major. It containing 9 chapters: earthworks engineering, foundation engineering, masonry works, concrete structures, housing structure installation engineering, bridge engineering, road engineering, water works, decoration works.

编 码: CE05077**Code:**CE05077**课程名称:** 投融资经济**Course Title:**Economics in Investment and Financing**课程类别:** 专业核心**Course category:**Required Core Course**学 分:** 3**Credit(s):**3**开课单位:** 土木工程学院**Offering College/School:**College of Civil Engineering

课程描述: 投融资经济是工程管理专业的一门专业核心课,其特点是从具体项目的角度分析和研究投资特征和融资途径等问题。本课程的教学能够使学生加深对其他相关经济理论知识的理解,提高对现实经济发展的判断能力,熟悉项目投资管理中的多种融资方式的特征,建立项目经理人的基本管理素质。本课程的内容是工程管理专业学生应该具备的基本知识。通过本课程的学习,使学生获得有关项目融资与投资的基本知识,掌握必要的基础理论和应用技巧,培养学生对市场经济的敏感性和综合分析相关经济业务的能力,从而初步拥有运用融资与投资知识解决实际问题的能力。

Course description: There is no contents at present.



编 码: CE05078**Code:**CE05078**课程名称:** 施工组织学**Course Title:**Construction Management Planning**课程类别:** 专业核心**Course category:**Required Core Course**学 分:** 3**Credit(s):**3**开课单位:** 土木工程学院**Offering College/School:**College of Civil Engineering

课程描述: 施工组织学是为工程管理专业学生开设的专业核心课, 设置该课程的主要目的是培养学生从事工程施工组织与管理工作的能力。该课程以建筑工程项目施工安装全过程的组织管理活动为研究对象, 通过优选施工组织方案和编制施工计划, 以实现多, 快, 好地完成工程建设的目的, 达到提高工程经济效果的目的。

Course description: Construction organization is the core course for the students majoring in engineering management. The main purpose of this course is to cultivate students' ability to engage in engineering construction organization and management. The course take the whole construction and installation process of building engineering project as research object, through the optimization of the construction organization plan, to achieve more faster, better and more economical results .

编 码: CE05079**Code:**CE05079**课程名称:** 工程项目管理**Course Title:**Engineering Project Management**课程类别:** 专业核心**Course category:**Required Core Course**学 分:** 3**Credit(s):**3**开课单位:** 土木工程学院**Offering College/School:**College of Civil Engineering

课程描述: 工程项目管理对建设工程项目的管理对象、方法、手段、阶段等进行了系统阐述,并力求清晰、透彻,包括了工程建设项目的决策,组织,范围与合同管理,招标与采购管理,进度、费用、质量和安全管理,资源管理,风险管理和项目收尾管理等,全面反映当前工程项目运行体系和工程项目管理的基本原理、方法和模式。

Course description: Project management of the construction project management objects, methods, means and stages were systematically elaborated and seek clear, thorough, including a construction project decision-making, organization, scope and contract management, tendering and procurement management, schedule, cost, quality and safety management, resource management, risk management and project closeout management, and fully reflect the basic principles of engineering projects currently running system and project management, methods and models.

编 码: CE05080

Code:CE05080

课程名称: 泵与泵站

Course Title:Pump and Pump station

课程类别: 专业核心

Course category:Required Core Course

学 分: 2

Credit(s):2

开课单位: 土木工程学院

Offering College/School:College of Civil Engineering

课程描述: 《泵与泵站》是给排水科学与工程专业主干专业基础课之一。主要包括: 给排水工程中常用叶片泵的基本构造、工作原理和主要性能; 离心泵与轴流泵的运行工况及其调节; 给水泵站的特点、泵的选择、泵站的节能、泵站辅助设施、泵站 SCADA 系统、泵站工艺设计方法; 排水泵站特点及工艺设计方法。

Course description: Pump and Pump Station is one of the core courses in Water and Wastewater Science and Engineering. Taking the Hydrodynamics as a leading course, it provides the core foundation for the study of the acquisition and distribution of water in Water and Wastewater Engineering. Pumps and Pumping Station main contents include the basic structure, the working principle and the main performance of the common Vane Pump in Water and Wastewater Engineering; the operating conditions and regulation of the Centrifugal and the Axial Pump; the Water pumping characteristics, the pump selection, the Pumping energy, the Pumping ancillary facilities, the Pumping station SCADA system and the methods of Process Design in Pumping station; the features and the methods of Process Design in Drainage Pumping station.

编 码: CE05081**Code:**CE05081**课程名称:** 给水管道工程**Course Title:**Water Network Engineering**课程类别:** 专业核心**Course category:**Required Core Course**学 分:** 3**Credit(s):**3**开课单位:** 土木工程学院**Offering College/School:**College of Civil Engineering

课程描述: 这是一门为给排水科学与工程专业学生开设的专业课。通过该课程的教学,使学生掌握给水系统的组成与布置形式和设计用水量的计算方法,熟悉给水系统各部分之间的流量与水压关系,掌握管网管径的确定和管网水力计算原理与方法,了解分区给水能量分析的原理与方法、水管及其附件的性能以及管网技术管理的基本内容,基本具有独立进行城市及工业给水管网初步设计的能力。

Course description: This is a core course designed for undergraduates majoring in Water and Wastewater Science and Engineering, aiming at the students' mastery of the composition and layout of water supply system and calculation of water amount, and the relationship between flow and pressure of parts of the water supply system, understanding the theories and methods of the pipe's diameter and hydraulic calculations, knowing of the principles and approaches of the district water supply, performance of water pipes and accessories, and basic contents of their technology management, developing the students' ability of preliminary design of pipeline network of city and industry.

编 码: CE05082**Code:**CE05082**课程名称:** 排水管道工程**Course Title:**Wastewater Network Engineering**课程类别:** 专业核心**Course category:**Required Core Course**学 分:** 2**Credit(s):**2**开课单位:** 土木工程学院**Offering College/School:**College of Civil Engineering

课程描述: 本课程为给排水专业核心课程, 主要讲述城市排水管道的基本原理、功能、应用条件。通过对分流制的污水、雨水和合流制排水系统的分析、计算、制图能力培养, 使学生基本掌握各种排水管网系统的基本理论, 基本具备城市排水管网系统的初步设计技能及部分施工设计技能, 为将来从事本专业的工程设计、科研及运行管理工作奠定一定的理论和实践基础。

Course description: The course is a core course of professional for undergraduate students of Water Supply and Drainage Science and Engineering. After teaching/learning basic principles, function and application condition of urban drainage pipe system, the students are asked to master basic theory of various drainage pipe system; to possess preliminary design and construction abilities of drainage pipe system. The instruction goal is to establish a certain theoretical and practical foudation of engineering design, research and operation/management for working on this major.

编 码: CE05083	Code: CE05083
课程名称: 水质物理化学净化工程	Course Title: Physico-chemical Processes of Water and wastewater treatment
课程类别: 专业核心	Course category: Required Core Course
学 分: 3.5	Credit(s): 3.5
开课单位: 土木工程学院	Offering College/School: College of Civil Engineering

课程描述: 该课程为给排水科学与工程专业本科生的专业核心课。通过本课程的教学,使学生熟悉水质物理化学处理的基本概念(如水中杂质分类及其特点、水质标准及常用指标、质量传递与物料衡算、理想反应器模型、胶体双电层结构模型、自由沉淀与拥挤沉淀等)、基本理论(如化学反应动力学基础、胶体杂质稳定与脱稳、理想沉淀与哈真理论、多孔介质过滤水力学、消毒原理、离子交换原理);基本掌握混凝、沉淀/澄清、过滤、消毒、离子交换等常用物理化学水处理工艺的设计理论和计算方法;了解吸附、膜法和水的其它物理化学处理方法;具有独立进行城市及工业物理化学水处理工程的初步设计能力。

Course description: This is a core course designed for undergraduates majoring in Water and Wastewater Science and Engineering. This course is aiming at the students' mastery of the basic concepts (such as classes and characteristics of impurity in water, water quality standards, mass transfer and balance, ideal flow models and reactors, double-layers model of colloids, non inter-particle effect settling and hindered settling) and the fundamental theories (such as fundamental kinetics of chemical reactions, stability and de-stability of colloids, ideal sedimentation and Hazens' theory, hydraulics for pore medium filtration, disinfection principle, ion exchange principle); Well understanding of the theories and methods for designing unit processes of coagulation, sedimentation, filtration, disinfection, and ion exchanging, Knowing of adsorption, membrane, and other physicochemical processes, and being able to design physicochemical processes for municipal or industries water quality control independently.

编 码: CE05084	Code: CE05084
课程名称: 水质生物净化工程	Course Title: Biological Processes of Water and wastewater treatment
课程类别: 专业核心	Course category: Required Core Course
学 分: 3.5	Credit(s): 3.5
开课单位: 土木工程学院	Offering College/School: College of Civil Engineering

课程描述: 水质生物净化工程课程为给排水科学与工程专业本科生的专业核心课。通过本课程的教学,使学生熟悉水质生物处理的基本概念(如污水的水质特征与水质指标、水体污染及危害、水体自净、活性污泥、生物膜等)、基本理论(活性污泥法的净化过程与机理、有机物降解动力学、曝气原理、生物膜法的净化机理、稳定塘的净化机理、厌氧生物处理的净化机理、污泥浓缩理论等);基本掌握活性污泥法和生物膜法处理工艺的设计理论和计算方法;了解污水生物处理的新工艺与新技术;具有独立进行城市及工业污水生物处理的初步设计能力。

Course description: This is a core course designed for undergraduates majoring in Water and Wastewater Science and Engineering. Aiming at the students' mastery of the basic concepts such as indexes and characteristics of water quality in wastewaters, wastewater pollution, selfpurification, activated sludge, biofilm, etc. and the fundamental theories such as purification mechanism of the activated sludge process, organics biodegradation kinetics, aeration theory, purification mechanism of biofilm, lagoons, anerobic biodegradation, the theory of condensed sludge. Well understanding of the theories and methods for designing the activated sludge processes and biofilm, Knowing of new technology in wastewater biological purification, and being able to design biochemical processes for municipal or industries water quality control independently.

编 码: CE05085	Code: CE05085
课程名称: 水资源利用与保护	Course Title: Utilization and Protection of Water Resources
课程类别: 专业核心	Course category: Required Core Course
学 分: 2	Credit(s): 2
开课单位: 土木工程学院	Offering College/School: College of Civil Engineering

课程描述: 本课程是给水排水专业的专业核心课程,以水文学、供水水文地质为前导课程,主要包括水资源量的计算与评价、水资源水质标准与评价、取水工程、节水理论及水资源保护等内容,学生需了解地球水量的储存、循环方式、水量平衡方程以及水资源开发利用情况;了解水资源保护的法律法规体系,污染物在水环境中迁移转化的物化与生化作用,水资源保护的内容、方法和措施;掌握水资源的构成,水资源质和量评价的理论与评价指标体系、评价模型;掌握水资源供需平衡分析的内容、需水量和供水量的计算与预测方法,供需平衡计算的系统分析方法;掌握水源地选择的原则和依据,取水构筑物类型、取水位置的选择原则、构筑物的构造特点、水量计算及其设计;掌握节水的指标体系、主要技术与措施,新型水资源的开发利用技术。通过学习本课程,学生具备水资源评价与分析、取水构筑物与辅助工程计算与设计的能力。

Course description: The preceding courses of Protection and Utilization of Water Resources are Hydrology and Water Supply Hydrogeology. As one of the core major courses of Water and Waste Water Engineering, this course mainly includes the calculation and evaluation of water resource, standards and evaluation for water quality of the water resource, water intaking, water saving theory and water resource protection, etc. After learning this course, the students are asked to understand the condition of the reservation, circulation, balance, development and utilization of water resource on earth; to understand the legal and rule systems of water resource protection, and physicochemical and biochemical mechanisms of water pollutant transformation in water environment, and the contents, methods and measures of water resources; to master the contents of water resource, the evaluation system and model of water quantity and quality, the supply-demand balance analysis of water resource, the calculation and prediction methods of water demand and water supply; to master the selection principles and basis of water resource, water intake structure type and location, as well as the construction features and the related calculation and design; to master the water saving index system and the main technology and measures; to master the development and techniques of new water resource. After finishing this course, students would possess the ability to conduct the evaluation and analysis of water resource, and to fulfill the calculation and design of water intake structures and appurtenant works.

编 码: CE05086

Code:CE05086

课程名称: 水处理实验技术

Course Title:Water Treatment Experimental Techniques

课程类别: 专业核心

Course category:Required Core Course

学 分: 1

Credit(s):1

开课单位: 土木工程学院

Offering College/School:College of Civil Engineering

课程描述: 《水处理实验技术》是给水排水工程专业必修课程, 内容涉及实验技术的基本理论、水处理基本实验。通过这门课程的学习使学生学会设计实验方案、组织实验、对实验数据进行整理分析得出切合实际的结论, 掌握给水处理、污水处理实验的基本原理, 实验方法。

Course description: Water Treatment Experimental Techniques is a compulsory course designed for undergraduates majoring in Water and Wastewater Science and Engineering. This course covers the basic theory of experimental techniques and fundamental experiments applying to water treatment. This course is aiming at the students' mastery of the design and organization of experiment programs, drawing practical conclusion after analyzing the experiment data, as well as the basic theory and experimental methods in water and wastewater treatment.

编 码: CE05087**Code:**CE05087**课程名称:** 弹性力学**Course Title:**Elasticity Mechanics**课程类别:** 专业核心**Course category:**Required Core Course**学 分:** 2**Credit(s):**2**开课单位:** 土木工程学院**Offering College/School:**College of Civil Engineering

课程描述: 弹性力学, 又称弹性理论, 是固体力学的一个分支。弹性力学研究弹性体由于外力作用而发生的应力、应变和位移。弹性力学是土木工程专业的核心课程。主要内容为一般弹性实体结构由于受外力作用、边界约束或温度改变等原因而发生的应力、应变和位移。弹性力学是严格力学分析方法与数学理论应用结合的典范。本课程的任务是在理论力学和材料力学等课程的基础上, 学习和掌握弹性力学的基本概念、基本方程和基本解法, 使得学生的力学建模、分析和计算能力得到新的提高。

Course description: Elasticity is an advanced mechanical course for undergraduate student of civil engineering. As an application of mathematical theory in strict mechanical analysis, the course deals with the fundamental problems such as stress, strain and displacement of elastic bodies under external forces, bounded constraint or due to change in temperature. On the basis of Theoretical Mechanics and Material Mechanics, the course is intended to introduce undergraduates the basic concepts, equations and solutions in elasticity and develop their abilities in mechanical modeling, analysis and calculation.

编 码: GE02018**Code:**GE02018**课程名称:** 土木工程制图**Course Title:**Civil Engineering Drawing**课程类别:** 学类核心**Course category:**Major Survey Course**学 分:** 2**Credit(s):**2**开课单位:** 土木工程学院**Offering College/School:**College of Civil Engineering

课程描述: 本课程的主要内容是画法几何理论知识, 即研究用投影法在平面上表达空间形体的图示方法和在平面图形上解决空间几何问题的图解方法。本课程旨在培养和发展学生的空间想象和空间构思能力, 提高学生的自学能力和分析解决问题的能力, 培养学生认真负责的工作态度和严谨细致的工作作风。与此同时, 本课程对增强学生的工程和创新意识还起着重要作用。通过对本课程的学习, 学生应掌握投影法尤其是正投影法的基本理论及其应用。

Course description: This course deals with theories of Descriptive Geometry which studies how to express solids in the plane by projection methods and how to solve the problems of the spatial geometry in the plane figure. The course is intended for developing the spatial imagination and creation, improving the abilities to self-learn, analyze and solve problems, and training the responsible attitude and meticulous style for students. This course also plays an important role in enhancing the engineering and innovation consciousness for students. The student is required to master the basic theories of projection methods, especially the orthographic projection methods and their application.

编 码: GE02040**Code:**GE02040**课程名称:** 建筑阴影透视**Course Title:**Building Shadow Perspective**课程类别:** 学类核心**Course category:**Major Survey Course**学 分:** 3**Credit(s):**3**开课单位:** 土木工程学院**Offering College/School:**College of Civil Engineering

课程描述: 本课程为"工程图学"的后续课程,是为建筑学和城乡规划等专业学生开设的专业限选课。课程具体内容包括:轴测投影、建筑形体表达方法、建筑施工图、阴影、透视、三点透视、透视阴影等。课程旨在培养学生的空间想象能力、建筑形体的表现力和手工绘图技能,为专业课的学习及课程设计、毕业设计打下坚实基础。通过本课程的理论学习和实践环节的技能训练,学生应掌握绘制、阅读工程图和透视阴影图的理论和方法,能够阅读与本专业相关的工程图样,具备绘制建筑透视阴影图的初步能力。

Course description: This course is a compulsory course for students majoring in Architecture, and Urban and Regional Planning, which is the follow-up course of Engineering Graphics. The contents of the course include axonometric projections, expression methods of architecture, architectural working drawings, shadows, perspectives, three-point perspectives, and shadow perspectives. The course is intended for training the abilities of spatial imagination, expression of architecture and manual drawing, and preparing a solid foundation of studying subsequent courses, fulfilling curriculum projects and graduation design for students. Through the theoretical study and technical training in practices, the student should have a good knowledge of theories and methods to read and draw engineering graphics and shadow perspectives, a good ability to read engineering graphics related with his major, and a preliminary ability to draw architectural shadow perspectives.

编 码: AR03015**Code:**AR03015**课程名称:** 中国建筑史**Course Title:**History of Chinese architecture**课程类别:** 学类核心**Course category:**Major Survey Course**学 分:** 3**Credit(s):**3**开课单位:** 建筑学院**Offering College/School:**College of Architecture

课程描述: 此课程的开设, 为学生提供了应对全球化的特色基础知识平台。通过该课程学习使学生广泛了解中国传统建筑文化的博大精深, 了解独特的建造体系, 从培养学生的中国建筑和东方文化的主体意识, 从而增强民族自信心。通过本课程的学习, 使学生对中国古代建筑的基本特点、基本做法和发展简史有概括性了解, 并对中国建筑的旧建筑体系特征有明确概念。该课程内容包括中国古代建筑的基本特征与基础知识; 中国古建筑各朝代发展概况; 近代中国新旧城市转型和建筑形式与建筑思潮; 现代建筑部分主要是介绍自律时期和开放时期的具有时代特征的建筑发展概况。学习的最终目的是为历史建筑的保护与利用提供借鉴与方法。

Course description: The course of study for students to provide the globalization of the special and basic knowledge. Through the course of study, students have a broad understanding of Chinese traditional architecture and profound scholarship, understanding the unique building system and promoting students' Chinese building and the body of the Oriental culture, thereby to increase self-confidence. Through the course of study, students can know fundamental characteristic, basic approach and development of the outline of ancient Chinese architecture, and have a definitely concept between new building system features and old buildings of Chinese architecture. The course contents include the basic feature of ancient Chinese architecture and basic knowledge ; Chinese ancient dynasties development of the survey ; Modern Chinese architecture and city in transition and the trend of the buildings ; Modern buildings section introduce time building development of the survey of self-discipline and the opening period of time. Ultimate aim for study is to provide protection of historical construction and use practices and methods.

编 码: AR03016**Code:**AR03016**课程名称:** 外国建筑史**Course Title:**History of Foreign architecture**课程类别:** 学类核心**Course category:**Major Survey Course**学 分:** 3**Credit(s):**3**开课单位:** 建筑学院**Offering College/School:**College of Architecture

课程描述: 这是一门为城市规划专业学生开设的专业基础课,通过该课程的教学使学生了解以欧美为主线的外国建筑的产生发展过程及特点,基本掌握不同时期各主要建筑流派和建筑思潮出现的背景、主要理论、代表人物和代表作品,并能用辩证唯物主义和历史唯物主义的眼光去分析建筑流派、建筑思潮和时代背景的关系。培养学生独立分析思考的能力,初步建立建筑历史观;训练表达与交流能力,使其能表达自己的想法与观点,与他人进行有效沟通。内容包括上古时期的六大建筑体系,中世纪的建筑,15 世纪-18 世纪的建筑,工业革命前后时期的建筑,新建筑运动时期的建筑,二次大战后多元化时期的建筑等。

Course description: This is a basic course for majors of city planning, aiming at the students' understanding of the formation and features of the foreign architectures mainly on the line of Europe and the United States , mastery of the main architectural schools and trends' background , theory, representatives and representative works, and analysis of relationship between architectural schools, trends and its backgrounds on the vision of dialectical materialism and historical materialism. The study of this course develops the students' ability to think independently, helping establishing the initial concepts of architectural history, brings up the students' ability of expression and communication, enabling them to express their thoughts and ideas clearly and communicate effectively with others. The main contents of this course are architectures in slave society, in Middle Ages , between 15 century to 18 century, about Industrial Revolution, during new architectural movement, and in the diversity period after World War II,etc.

编 码: AR03019

Code:AR03019

课程名称: 设计概论

Course Title:Introduction to design

课程类别: 学门核心

Course category:Introductory Major Course

学 分: 1.5

Credit(s):1.5

开课单位: 建筑学院

Offering College/School:College of Architecture

课程描述: 设计概论是一门理论性的课程,其主要目的是对建筑有一个正确而较为系统的认识,对我们的专业有一个比较综合的理解,建立起专业的建筑的概念,然后把握建筑的许多属性。

Course description: Introduction to design is a theoretical course, its main purpose is to building a right and wrong is a systematic understanding, for our professional have a more comprehensive understanding of the established the concept of professional construction, and then grasp building many of the properties.



编 码：AR03021

Code:AR03021

课程名称：人居环境科学导论

Course Title:Introduction to Human's Residential Environmentology

课程类别：学门核心

Course category:Introductory Major Course

学 分：1.5

Credit(s):1.5

开课单位：建筑学院

Offering College/School:College of Architecture

课程描述： 内容暂缺

Course description: There is no contents at present.



编 码：AR03022

Code:AR03022

课程名称：美术 I

Course Title:Art I

课程类别：学门核心

Course category:Introductory Major Course

学 分：2

Credit(s):2

开课单位：建筑学院

Offering College/School:College of Architecture

课程描述： 内容暂缺

Course description: There is no contents at present.



编 码：AR03022

Code:AR03022

课程名称：美术 I

Course Title:Art I

课程类别：学门核心

Course category:Introductory Major Course

学 分：2

Credit(s):2

开课单位：建筑学院

Offering College/School:College of Architecture

课程描述： 内容暂缺

Course description: There is no contents at present.



编 码：AR03023

Code:AR03023

课程名称：美术 II

Course Title:Art II

课程类别：学门核心

Course category:Introductory Major Course

学 分：2

Credit(s):2

开课单位：建筑学院

Offering College/School:College of Architecture

课程描述： 内容暂缺

Course description: There is no contents at present.



编 码：AR03023

Code:AR03023

课程名称：美术 II

Course Title:Art II

课程类别：学门核心

Course category:Introductory Major Course

学 分：2

Credit(s):2

开课单位：建筑学院

Offering College/School:College of Architecture

课程描述： 内容暂缺

Course description: There is no contents at present.



编 码：AR03024

Code:AR03024

课程名称：专业美术 I

Course Title:Professional Art I

课程类别：学门核心

Course category:Introductory Major Course

学 分：2

Credit(s):2

开课单位：建筑学院

Offering College/School:College of Architecture

课程描述： 内容暂缺

Course description: There is no contents at present.



编 码：AR03024

Code:AR03024

课程名称：专业美术 I

Course Title:Professional Art I

课程类别：学门核心

Course category:Introductory Major Course

学 分：2

Credit(s):2

开课单位：建筑学院

Offering College/School:College of Architecture

课程描述： 内容暂缺

Course description: There is no contents at present.



编 码：AR03025

Code:AR03025

课程名称：专业美术 II

Course Title:Professional Art II

课程类别：学门核心

Course category:Introductory Major Course

学 分：2

Credit(s):2

开课单位：建筑学院

Offering College/School:College of Architecture

课程描述： 内容暂缺

Course description: There is no contents at present.



编 码：AR03025

Code:AR03025

课程名称：专业美术 II

Course Title:Professional Art II

课程类别：学门核心

Course category:Introductory Major Course

学 分：2

Credit(s):2

开课单位：建筑学院

Offering College/School:College of Architecture

课程描述： 内容暂缺

Course description: There is no contents at present.



编 码: AR03026**Code:**AR03026**课程名称:** 环境心理学**Course Title:**Environmental Psychology**课程类别:** 学门核心**Course category:**Introductory Major Course**学 分:** 1**Credit(s):**1**开课单位:** 建筑学院**Offering College/School:**College of Architecture

课程描述: 了解环境心理学的产生及其发展,了解人的行为与城市、建筑、环境之间的关系与相互作用;掌握环境心理学研究的基本理论与方法;学会用心理学、行为学理论解决城市设计、建筑设计与人的关系问题。同时,初步掌握环境评估和社会调查的基本方法,完成相应的调查分析报告,树立并锻炼学生在城市规划及设计中的社会参与意识和参与能力。

Course description: Understand the arising and developing of environmental psychology, understand people's behavior and the city, building, the relationship between the environment and interaction; To master the basic theories of environmental psychology research and the method; Learn to use psychology, behavioral science theory to solve the urban design, architectural design and the problem of the relationship between the people. At the same time, preliminary to master the basic methods of environment evaluation and social survey, complete the corresponding survey analysis report, set up and training students in urban planning and design of the social consciousness and ability of participation.

编 码: AR03027

Code:AR03027

课程名称: 计算机辅助建筑
设计 I

Course Title:Computer-Aided Architectural Design I
Architectural Design I

课程类别: 学门核心

Course category:Introductory Major Course

学 分: 1

Credit(s):1

开课单位: 建筑学院

Offering College/School:College of Architecture

课程描述: 这是一门为建筑学、景观学、城市规划等专业学生开设的专业基础课, 通过该课程的教学使学生能够掌握计算机绘图方法, 使学生了解 CAAD 方面的基础知识和基本原理, 理解计算机图形的生成方法, 运用建筑设计、规划设计等软件并结合编程进行辅助工程设计。

Course description: This is a professional fundamental course for Architecture, Landscape, and Urban Design. Through this course, students can obtain the methods of Computer Graphing, and the acquaintance of the basic principles and basic knowledge of CAAD, which can help them to understand the generation of computer graphic, and to do the computer aided engineering with architectural design software, urban design software, and so on.

编 码: AR04001**Code:**AR04001**课程名称:** 设计基础 I**Course Title:**Design Basis I**课程类别:** 学类核心**Course category:**Major Survey Course**学 分:** 3**Credit(s):**3**开课单位:** 建筑学院**Offering College/School:**College of Architecture

课程描述: 这是一门为建筑学、城市规划及景观学专业学生开设的一门专业基础课。通过该课程的教学使学生初步具备一定的设计审美能力,使学生掌握用构成的标准理解、分析设计审美问题,并尝试解决专业设计中的形式问题。通过课程作业的训练使学生掌握必备的设计表达能力,包括钢笔线条建筑画技能、专业制图技能。教学方式主要包括理论教学和课程设计,教学内容主要为设计基础概论和形态的基础理论。具体包括:设计基础的方法论;设计基础教学的内容、目的、教学方式;造型的基本要素;形态的视觉心理;形态的美学法则;平面构成原理;立体构成原理;色彩构成原理;线条钢笔画的特点和基本技法。

Course description: This is one for the architecture, urban planning and landscape school students offered a basic course. Through the course of teaching so that students have an initial capacity of certain design aesthetic. Enable students to master the use of standard form of understanding, analysis and design aesthetic issues and attempt to resolve the problem in the form of professional design. Through the course work necessary training to enable students to master design skills, including building a pen line drawing skills, professional graphics skills. Teaching methods include theoretical instruction and curriculum design, The main basis for the design of teaching content and shape of Introduction to the basic theory, Including: design-based methodology; design of the basic teaching of the content, objectives, teaching methods; form the basic elements; forms of visual psychology; forms of aesthetic principles; typical elements; three-dimensional form theory; color composition theory; line pen painting Features and basic techniques.

编 码: AR04002**Code:**AR04002**课程名称:** 设计基础 II**Course Title:**Design Basis II**课程类别:** 学类核心**Course category:**Major Survey Course**学 分:** 3**Credit(s):**3**开课单位:** 建筑学院**Offering College/School:**College of Architecture

课程描述: 这是一门为建筑学、城市规划及景观学专业学生开设的一门专业基础课。通过该课程的教学使学生初步具备一定的设计审美能力, 结合对立体构成、空间构成原理的学习使学生掌握用构成的标准理解、分析设计审美问题, 并尝试解决专业设计中的形式与空间的问题。通过教学和课程作业让学生理解设计的本质、特点和方法, 着重培养学生的审美能力、空间认识能力和设计的表达能力。教学方式主要包括理论教学和课程设计, 教学内容主要为空间的基础理论和建筑制图、模型制作的基本理论及方法。具体包括: 空间的基本理论、空间限定的原理、空间构成的方法、空间理论在微观、中观、宏观环境设计中的应用; 建筑制图标准、建筑图的画法; 建筑模型制作的种类、建筑模型制作的方法等。

Course description: This is one for the architecture, urban planning and landscape school students offered a basic course. Through the course of teaching so that students have an initial capacity of certain design aesthetic, Combination of the three-dimensional form, space constitutes a principle of learning to enable students to master the use of standard form of understanding, analysis and design aesthetic problems, And try to solve the professional design of form and space. Through teaching and course work designed for students to understand the nature, characteristics and methods, culture student's ability to focus on the aesthetic, spatial cognitive ability and design skills. Teaching methods include theoretical instruction ,and curriculum design. Teaching mainly the basic theory of space and architectural drawing, modeling the basic theory and methods, Including: the basic theory of space, the principle of limited space, space constitutes a way to space theory in micro, meso and macro environmental design; architectural drawing standards, drawing building plans; architectural model making the type of construction model making methods.

编 码: AR04004

Code:AR04004

课程名称: 建筑构造 I

Course Title:Building Constitution I

课程类别: 学类核心

Course category:Major Survey Course

学 分: 2

Credit(s):2

开课单位: 建筑学院

Offering College/School:College of Architecture

课程描述: 通过本课程学习, 使学生掌握一般民用建筑的构造原理, 包括基础、墙体、楼地面、屋顶、楼梯、饰面装饰、门窗的基本性能、结构及材料特性及相互连接原理, 掌握构造设计的一般方法, 并了解相关设计规范。

Course description: Through this course, students master the general principles of civil construction of the structure, including the basic properties, structure and material characteristics and principles of mutual connection of foundation, walls, floor, roof, stairs, decorative finishes, doors and windows, control structure design general approach and understand the relevant design code. Other week through the course design, students control the initial methods of working drawing.

编 码：AR04005

Code:AR04005

课程名称：建筑构造 II

Course Title:Building Construction II

课程类别：专业核心

Course category:Required Core Course

学 分：2.5

Credit(s):2.5

开课单位：建筑学院

Offering College/School:College of Architecture

课程描述： 通过学习，使学生了解工业化建筑构造，掌握高层建筑的结构体系及构造、防火原理和基本设备配置；了解大跨度建筑的基本构造、类型及应用范围

Course description: Through this course, students understand industrial building construction, control structural system and construction, fire prevention principles and basic device configuration of high-rise building, understand the basic structure, types and application of large-span building, understand the basic principle of special decoration.



编 码: AR04006**Code:**AR04006**课程名称:** 公共建筑设计原理**Course Title:**Public Buildings Design Principle**课程类别:** 学类核心**Course category:**Major Survey Course**学 分:** 2**Credit(s):**2**开课单位:** 建筑学院**Offering College/School:**College of Architecture

课程描述: 本课程是建筑学专业的必修课,同时也是城市规划专业的选修课程,是建筑设计课程的基本理论部分。因此,本课程的教学必须与建筑设计紧密结合,学生应通过设计实践来深入理解和掌握这些基本原理。

Course description: This course is compulsory for Architecture, meanwhile an optional course for Urban Planning and it is the basic and theoretical part of Architecture Design. Therefore, the teaching should be focused on Architecture Design. And the students should thoroughly understand and master the basic principles by practicing.

After taking this course, the students should be able to: understand the general procedures and the key points of Public Buildings; master the functions and the space construction of those common Public Buildings; know the basic principle of the streamline organization and the space combination of inside and outside; improve design skills for middle and small sized Public Buildings.

编 码: AR04007

Code:AR04007

课程名称: 场地设计

Course Title:Site Design

课程类别: 学类核心

Course category:Major Survey Course

学 分: 2

Credit(s):2

开课单位: 建筑学院

Offering College/School:College of Architecture

课程描述: 场地设计 I 是建筑学专业学习的重要环节。课程采用专业理论与工程实践并重的方式,通过本课程的学习,学生应理解场地设计基本概念,掌握场地设计的基本内容和表达方法。并了解基本的规范和设计标准。

Course description: Site design I is an important part of professional learning in architecture. This course focuses on both Curriculum theory and engineering practice in professional way. By learning it, students should understand the basic concept of site design, grasp the basic content and method of expression, and master the primary specifications and design standards.



编 码: AR04009**Code:**AR04009**课程名称:** 居住区规划**Course Title:**Residential Planning**课程类别:** 学类核心**Course category:**Major Survey Course**学 分:** 3**Credit(s):**3**开课单位:** 建筑学院**Offering College/School:**College of Architecture

课程描述: 这是一门为城市规划专业学生开设的设计专业课，为其主干设计课程之一。通过实例分析与参观考察，使学生对居住区规划设计的设计内容、设计方法、设计步骤以及相关规范要求等有基本的认识与了解，能独立进行居住区的方案设计。课程安排在城市规划专业三年级，城市规划原理 A（1）、住宅建筑设计原理等课程为先修课程。选取居住小区规划作为课程设计作业。主要内容为居住区的规划结构、建筑布局、道路交通规划、居住区绿化景观规划、居住区设施规划以及居住区技术经济指标体系等。

Course description: This is a core courses for urban and rural planning students. Through example analysis and visit, this course makes students have a better understanding of the design content, design method, design process and related specification requires of Urban Residential District Designing. The course is been arranged in grade three for urban planning professional students. Urban planning principle A (1) as well as residential building design principle should be taught before. Selecting one of the residential area planning as the homework. The main content includes the residential area planning structure, architectural layout, road traffic planning, residential green landscape planning, residential facilities planning, and residential area technical and economic index system and so on.

编 码: AR04010	Code: AR04010
课程名称: 居住建筑设计原理	Course Title: Residential Building Design Principles
课程类别: 学类核心	Course category: Major Survey Course
学 分: 2	Credit(s): 2
开课单位: 建筑学院	Offering College/School: College of Architecture
课程描述: 城市住宅建筑的发展成为现代建筑的实验场地, 不同程度地影响了人们的生活方式和生活品质的提高。所以建筑师对居住建筑应有全面的了解和深入的研究。	

课程主要包括城镇居住建筑类型和发展概述、住宅套型生活空间设计和套型平面的组合设计、套型空间的适应性与可变性设计、住宅楼栋设计、中高层和高层住宅设计简介等。

通过学习, 使学生加深理解居住模式和社会经济、文化、生活等诸多因素对居住建筑设计的影响。要求学生重点掌握城市住宅建筑套型设计的基本原理和方法、住栋类型和造型规律。并了解城镇住宅适应性空间的设计方法, 以建立动态的设计观念; 同时使学生了解城镇居住建筑结构类型和相关技术规范, 关注在可持续发展的原则下较新的发展趋势和动向。

Course description: The development of the residential building had affected peoples live in different degree. So architects should have an all-sided understanding and deeply studying of residential buildings.

The main contents of the course include the summarizing knowledge of the urban residential building types and their development; the suite of the living rooms design, and the adaptability and changeability design of the rooms. They also include the design of the body of this type of building, the brief introduces of the high residential buildings, and the structure types of the residential buildings, and some other correlative criterions of this type of buildings.

By the studying, the students will understanding how the social economy, culture and peoples living style would affect the urban residential building design. The principles and the methods of the suite of the living rooms of the urban residential buildings design would be emphasized. The students should also grasp the methods of the adaptability and changeability design of the rooms, so they can set up the dynamic design concept of the buildings; and they should care about the new directions of the urban residential buildings design under the continuable development conceptions.

编 码: AR04011**Code:**AR04011**课程名称:** 城市设计概论**Course Title:**Introduction to Urban Design**课程类别:** 学类核心**Course category:**Major Survey Course**学 分:** 2**Credit(s):**2**开课单位:** 建筑学院**Offering College/School:**College of Architecture

课程描述: 本课程系统地阐述了城市设计的理论和基本方法, 结合国内外优秀的城市设计范例, 力求城市设计理论与城市设计实践相结合、城市设计研究与城市设计教学相结合。主要以城市设计理论为主, 论述城市与城市设计、城市设计的基本理论、城市设计基础: 空间与城市空间, 以及城市设计的理念、基本要素和基本方法等内容。以范例教学的方式, 从城市的宏观、中观、微观三个层面, 介绍多种类型城市设计范例的内容、思路和设计手法, 力求从新视角提高学生的城市设计理论水平和设计能力。

Course description: This course systematically expounded the theory and basic methods of urban design, combined with domestic and foreign outstanding example of urban design, urban design theory and strive to urban design practice, design of urban and urban design education combined. Based mainly in urban design theory, discusses the city and urban design , basic theory of urban design, including: space and urban space , urban design concept, the basic elements and basic methods and so on. By way of example teaching, from a macro city, meso, micro levels, describes the contents of various types of urban design paradigm, ideas and design techniques, new perspectives and strive to improve students' level of urban design theory and design capabilities.

编 码：AR04012

Code:AR04012

课程名称：城市园林绿地规划

Course Title:Urban Green Space Planning

课程类别：学类核心

Course category:Major Survey Course

学 分：2

Credit(s):2

开课单位：建筑学院

Offering College/School:College of Architecture

课程描述： 内容暂缺

Course description: There is no contents at present.



编 码: AR04029**Code:**AR04029**课程名称:** 景观建筑学**Course Title:**Landscape architecture**课程类别:** 学类核心**Course category:**Major Survey Course**学 分:** 2**Credit(s):**2**开课单位:** 建筑学院**Offering College/School:**College of Architecture

课程描述: 通过本课程的学习,使学生了解城市园林绿地的功能与作用,进一步提高对城市环境问题的认识,树立正确的规划设计观点,理解社会生活与建筑环境、规划的关系,了解国家现行的有关园林绿地规划的设计标准。学生在完成本课程的学习后,初步掌握园林绿地规划设计的基本知识和技能,提高环境规划设计的能力。主要内容包括:园林设计、城市园林绿地规划设计的相互关系及发展历史,城市园林绿地系统规划,园林绿地的组成要素,园林绿地规划设计基本方法,各类园林绿地规划。

Course description: By learning this course, students may learn the functions of urban garden and green space, improve the understanding of urban environmental issues, develop the right concepts in landscape planning and design, understand the relationship among social life, building environment and urban planning, and learn about the current design standards of the State on urban garden and green space of planning. The main contents of this course include: developing history and mutual relations of landscape design, urban garden and green space planning, urban garden and green space system planning, sections of urban garden and green space system , basic methods of garden and green space planning and design , different types of garden and green space planning .

编 码: AR05008**Code:**AR05008**课程名称:** 城市总体规划设计**Course Title:**Urban Master Planning and Design**课程类别:** 专业核心**Course category:**Required Core Course**学 分:** 5**Credit(s):**5**开课单位:** 建筑学院**Offering College/School:**College of Architecture

课程描述: 通过理论教学与案例分析、参观、课堂作业练习、课程设计,使城市规划专业的学生对城市总体规划编制的基本过程和内容、方法有基本的认识 and 了解,初步具备基本进行中、小城市总体规划编制的能力,同时具备一定的综合应用已学专业知识和进行分析和研究的能力。课程主要包括:当代城市规划面临的背景形势、当前城市规划工作的任务与规划体系、城市总体规划与其他相关规划、计划的关系、与城市总体规划相关的法律、法规、城市总体规划编制原则、城市总体规划基础资料调查与分析、城市总体规划设计方法与步骤、城市总体规划人口与用地规模论证、城市总体规划案例评析、城市总体规划的实施评估、城市总体规划编制内容与表达方式。

Course description: By teaching the theory and case studies, visiting, doing some exercises and curriculum design, students majored in urban planning start to know the basic process of urban planning and understand related contents and methods. And students are available to do the planning of the middle cities and small cities, as well as the ability to have some comprehensive application for the learned professional knowledge. The main contents of this course include: the background situation the current urban planning faced, the current missions and planning systems of urban planning , the relationship of urban master planning and other related planning and programs , the laws and regulations associated with the urban master planning, the principles of overall urban planning , the basis survey and analysis of the overall urban planning, the overall urban planning's methods and procedures , the argumentation on population and land size of overall urban planning , the case assessment of overall urban planning, the assessment of the implementation of the urban master planning and the contents and expressions of urban master planning .

编 码: AR05010**Code:**AR05010**课程名称:** 城市社会经济学**Course Title:**Urban Social Economics**课程类别:** 专业核心**Course category:**Required Core Course**学 分:** 2**Credit(s):**2**开课单位:** 建筑学院**Offering College/School:**College of Architecture

课程描述: 本课程是城市规划专业核心,它融合了微观经济学、宏观经济学、土地经济学和城市规划等各项专业知识,专门针对城市规划进行经济论证和分析,包括了规划师必须掌握的一些技巧。

本科课程主要偏重于城市内部经济社会活动合理组织的研究范畴(微观城市经济学)。研究其中的各种经济社会现象发生发展的规律,以及在城市发展的过程中政府如何尽可能地提供完备公共服务,弥补市场不足,促进城市经济社会发展,提高城市竞争力。

Course description: This course is a professional core of urban planning, which combines the expertise of microeconomics, macroeconomics, economics and urban planning, land devoted to economic reasoning and analysis of urban planning, including some tips planners must master .

The main emphasis on undergraduate courses within the city's economic and social activities in the rational organization of research areas (micro-urban economics). Studies in which the various economic and social development of the phenomenon of the law, as well as in the process of urban development in the government how to provide comprehensive public services as much as possible, to make up for the lack of market and promote the city's economic and social development, improve urban competitiveness.

编 码: AR05011**Code:**AR05011**课程名称:** 建筑设计 I**Course Title:**Building Design I**课程类别:** 专业核心**Course category:**Required Core Course**学 分:** 5**Credit(s):**5**开课单位:** 建筑学院**Offering College/School:**College of Architecture

课程描述: 本课程是建筑学专业的必修课程, 主要传授建筑设计的基础理论、基本知识, 培养学生的设计实践能力, 掌握正确的设计思维方法, 树立正确的设计观。以“空间”、“功能”、“形式”等为基本线索, 掌握空间思维方法, 对简单空间的功能进行分析与设计, 理解建筑的形体、形式与空间的关系, 熟悉建筑设计的基本过程。

Course description: This course is a compulsory course specialized in architecture, mainly teach basic theory, elementary knowledge of the architectural design and train students' design to practise ability, grasp the correct design thinking method, establish the correct design view. Regard "space", "function", "form", etc. as the basic clue, grasp the space thinking method, go on, analyze and design to simple function of space, physique, form, relation of space to understand building, familiar with the basic course of the architectural design.

编 码: AR05012**Code:**AR05012**课程名称:** 建筑设计 II**Course Title:**Building Design II**课程类别:** 专业核心**Course category:**Required Core Course**学 分:** 5**Credit(s):**5**开课单位:** 建筑学院**Offering College/School:**College of Architecture

课程描述: 课程教学目标为: 使学生进一步树立功能意识、空间意识和环境意识, 掌握建筑设计的基本原理、基本程序和基本思维方法, 根据不同功能、环境及技术条件解决建筑的空间构成、组合、环境创造和形体塑造等问题。教学内容主要包括: 住宅的功能分析; 人体与家具尺度; 居住部分布置与分析; 交通部分布置与分析; 辅助部分的布置分析; 不同类型住宅的设计; 住宅的技术与经济性。学习在给定用地范围内, 按建筑功能及形式要求对空间及形体进行围合、划分、引导的能力; 分析人对居住空间的基本要求, 人在居住空间的行为方式和感受; 理解结构形式对空间的限定与围和作用; 了解调研收集资料的科学方法; 了解建筑个体与环境相协调的重要性。

Course description: The teaching goal of course is: Make students further establish function consciousness, space consciousness and environmental awareness, master the basic principle, basic procedure and basic thinking method of the architectural design, solve space form, make according to different function, environment, technological terms up, environment create and physique person who mould problem of building, The content of courses mainly includes: function analysis of the house; human body and furniture yardstick; live and assign and analyze partly; the traffic part is assigned and analyzed; assist some arrangement to analyze: the designs of the different kinds of houses; technology and economy of the house. Study, within the range of designated area, go on ability that surround, divide, lead according to building function and form requirement to space and physique; Analyze people to basic demand to inhabit space, people inhabit manner of space and experience; Understand the structural form limited and enclosing and function on the space; Demodulation grind collect materials scientific method; Importance to understand building individual and environment's coordination.

编 码：AR05013

Code:AR05013

课程名称：建筑设计III

Course Title:Building Design III

课程类别：专业核心

Course category:Required Core Course

学 分：5

Credit(s):5

开课单位：建筑学院

Offering College/School:College of Architecture

课程描述： 建筑设计III是建筑学专业本科生的主干专业课程。该课程通过讲授公共建筑设计基本理论及知识，培养学生掌握常用的平面功能组织和空间设计的方法。

Course description: Architecture DesignIII is the core unit for undergraduate students majored in Architecture. This unit aims to insulate students' understanding of common plan program and space design through teaching the basic theories and principles of public architecture design.



编 码: AR05014

Code:AR05014

课程名称: 建筑设计IV

Course Title:Building Design IV

课程类别: 专业核心

Course category:Required Core Course

学 分: 5

Credit(s):5

开课单位: 建筑学院

Offering College/School:College of Architecture

课程描述: 本课程为建筑学专业的主干课,是三年级的建筑设计课。三年级是建筑设计的提高阶段。通过一系列中型建筑设计的训练,着重解决设计方法的掌握、方案的创意表现及在设计中融合城市设计的相关知识内容等几方面问题。

Course description: Architecture Design IV is the core unit for junior students majored in Architecture. Junior students are in the improving phase of architecture design. This unit mainly focuses on design methods, the creative communication of the design and design integrated with urban design by the means of a series of trainings in intermediate architecture design.



编 码: AR05022**Code:**AR05022**课程名称:** 建筑设计 V**Course Title:**Building Design V**课程类别:** 专业核心**Course category:**Required Core Course**学 分:** 5**Credit(s):**5**开课单位:** 建筑学院**Offering College/School:**College of Architecture

课程描述: 建筑设计 V 是建筑学专业本科生的主干专业课程。该课程通过传授高层建筑设计基本理论及知识,培养学生的实践能力和正确的设计方法,掌握高层建筑及写字楼设计创作的一般规律与方法;对高层建筑与城市周围环境的关系有一定的认识;了解高层建筑基本原理及防火规范;了解结构体系及选型。

Course description: Architecture Design V is the core unit for undergraduate students majored in Architecture. This unit aims to foster students' ability of practices and design methods and the general rule and method of designing high-rise building and office through teaching the basic theories and principles of high-rise building design. Enhance students' understandings of the relationship of high-rise buildings and urban context, the basic design principle, fire protection norm of high-rise buildings, the structure system and the structural lectotype.

编 码: AR05023**Code:**AR05023**课程名称:** 建筑设计VI**Course Title:**Building Design VI**课程类别:** 专业核心**Course category:**Required Core Course**学 分:** 5**Credit(s):**5**开课单位:** 建筑学院**Offering College/School:**College of Architecture

课程描述: 建筑设计VI是建筑学专业本科生的主干专业课程。该课程通过传授大跨度建筑设计基本理论及知识,培养学生的实践能力和正确的设计方法。从而从流线、结构选型、大空间平面选型及建筑物理技术条件来解决该类建筑的空间构成、技术构成、结构选型和消防等问题,学生在掌握设计基本原理之外,还要通过模型制作及计算机辅助设计等手段达到掌握大跨度建筑设计的技巧和表现方法,加强学生制作比较复杂的工作模型的能力,对较复杂建筑类型的理解以及大跨度建筑的建筑设计原理的学习。通过对城市实地调研,加强学生对城市需求及社会化复杂性的理解。

Course description: Architecture Design VI is the core unit for undergraduate students majored in Architecture. This unit aims to foster students' ability of practices and design methods through teaching the basic theories and principles of large span buliding design. Reinforce students' ability of sloving the space composition, technical composition, structural lectotype and fire fighting of this type of buildings through the aspects of circulation, structural lectotype, the big room plan lectotype and building physics. Besides control the basic design principle, students should, via modelling and CAAD, obtain the design method and communication skills of large span buildings, and reinforce the ability of making complicated work models and the understanding of complex architecture type and the basic principle of large span buildings design. Reinforce the students' understanding regarding urban needs and complexity of socialization through the field research.

编 码: AR05032	Code: AR05032
课程名称: 建筑物理 I(热环境、光环境)	Course Title: Architectural physics I (Thermal Environment,Luminous Environment)
课程类别: 专业核心	Course category: Required Core Course
学 分: 3	Credit(s): 3
开课单位: 建筑学院	Offering College/School: College of Architecture

课程描述: 本课程是为建筑学专业开设的一门专业技术课,通过该课程的教学,使学生能够了解什么是舒适的建筑热环境以及怎么样来创造基本的建筑舒适热环境。本课程系统地介绍了建筑热环境的基础知识及其在设计上的应用,结合了建筑学学生的特点,基础部分着重说明物理概念,简化了繁杂的数学推导,目的是使学生更好地掌握营造舒适、健康、高效的建筑热环境的理念和相关知识。主要内容包括传热基本知识;建筑保温;建筑隔热;建筑日照与遮阳。

同时,通过该课程的教学,使学生能够掌握建筑光环境的基本概念,基本理论和基本计算技能,为学生以后从事与建筑环境相关的设计与研究打下必不可少的基础。通过建筑光环境整个教学过程逐渐培养学生分析问题,概括问题的能力。培养学生能比较熟练的在设计过程中较好的运用环境特点,来创造良好的建筑光环境。主要内容为采光和照明设计的基本方法和基本原理。主要包括建筑光学基本知识;天然采光;人工照明等。

Course description: This is a technique course for majors of architecture. With the course of teaching, Students will understand the conception of comfortable architecture environment and how to create a basic comfortable thermal environment. The basic knowledge of architecture thermal environment and application in building design was introduced systematically in the course. In order to meet demand of architecture students, the course focus on elaborating physics concept, Simplify the complicated mathematical derivation. The course aims to enable students grasp ideals and knowledge that build a comfortable, healthy and efficient architecture thermal environment. The main contents include: heat transfer; building thermal insulation; sunlight an sun-shading .

This course aiming at the students' mastery of the basic concepts and theories of architecture luminous environment and the development of their calculate techniques in architecture luminous environment, thus laying a solid foundation for their study and research about architecture environment in the future. The study of this course develops the students' ability to analyze and solve practical problems, and ability of using environmental feature to create expertly fine light environment in design progress. The main contents of this course are the basic approaches and principles of natural lighting and artificial illumination.

编 码: AR05033

Code:AR05033

课程名称: 中外城建史与历史名城保护

Course Title:History of Chinese and Foreign Urban Construction and Protection of Historical Cities

课程类别: 专业核心

Course category:Required Core Course

学 分: 2

Credit(s):2

开课单位: 建筑学院

Offering College/School:College of Architecture

课程描述: 内容暂缺

Course description: There is no contents at present.



编 码: AR05034

Code:AR05034

课程名称: 城市规划管理与法规

Course Title:Administration and Law of Urban Planning

课程类别: 专业核心

Course category:Required Core Course

学 分: 2

Credit(s):2

开课单位: 建筑学院

Offering College/School:College of Architecture

课程描述: 内容暂缺

Course description: There is no contents at present.



编 码: AR05035**Code:**AR05035**课程名称:** 道路交通规划**Course Title:**Road and Traffic Planning**课程类别:** 专业核心**Course category:**Required Core Course**学 分:** 3**Credit(s):**3**开课单位:** 建筑学院**Offering College/School:**College of Architecture

课程描述: 主要内容包括如何认识道路交通、城市道路组成及设计技术要求、道路系统规划原则及评价标准等。本课程重点培养学生对城市道路规划的认识和把握,在规划实践中把握好城市空间中道路交通的分配及协调问题。

Course description: Through learning this course, master the basic knowledge of urban road design, city traffic and road system knowledge structure, on the basis of comprehensive analysis and evaluation of the overall urban planning and regional road network system and the traffic problem, for the overall urban planning and design professional basis. Main contents include how to realize the road traffic, city road composition and design principle of technical requirements, the road system planning and evaluation standard, etc. This course focus on cultivating students awareness of urban road traffic planning and grasp, grasp well in the planning practice of road traffic in the urban space allocation and coordination problems.

编 码: AR05036**Code:**AR05036**课程名称:** 城乡规划原理 II**Course Title:**Theory of Urban and Rural Planning II**课程类别:** 专业核心**Course category:**Required Core Course**学 分:** 2**Credit(s):**2**开课单位:** 建筑学院**Offering College/School:**College of Architecture

课程描述: 本课程是在《城市规划原理 I》基础上,面向城乡规划与建筑学专业开设的核心课程。本课程讲授城市规划以及城市规划编制,重点讲授详细规划编制的内容与方法,特别是居住区规划设计原理。通过本课程教学,一方面使学生掌握城市规划编制体系、内容和方法,特别是详细规划编制的内容和方法,另一方面使学生重点掌握居住区规划设计原理,为学生学习居住区规划设计打下理论基础。

Course description: Following 《Urban Planning Theory I》,this course is treated as one of key courses for students of urban & rural planning and architecture. This course mainly teaches students how to formulate urban plan, especially focusing on detailed urban planning and neighborhood design. By learning this courses, students will know the sytem of urban planning formulation, especially the content and method of detailed urban planning. Also, students will know the theory of neighborhood design, which will lay a theoretical foundation for their further study.

编 码: AR05037**Code:**AR05037**课程名称:** 城乡规划原理III**Course Title:**Theory of Urban and Rural Planning III**课程类别:** 专业核心**Course category:**Required Core Course**学 分:** 2**Credit(s):**2**开课单位:** 建筑学院**Offering College/School:**College of Architecture

课程描述: 这是一门为城乡规划专业学生开设的核心课程。本课程承接城市规划原理 A(1), 进一步阐释城乡规划的基本原理、规划设计的原则和方法, 以及规划设计的经济问题。包括城市与城市化、城市规划思想发展、城市规划体制、城市规划的价值观、生态与环境、经济与产业、人口与社会、历史与文化、城市规划的类型与编制内容、城市用地分类及其适用性评价、城乡区域规划、总体规划、控制性详细规划等方面的内容。

Course description: This is a core courses for urban and rural planning students. This courses continues the Urban Planning Theory A(1) and gives the further explanations about the basic principles of urban and rural planning,the principles and methods of urban design, the economic issue in planning and design. It includes the following: the urban and the urbanization,the evolution of urban planning thoughts,the system of urban planning,the values of urban planning,the ecology and environment,the economy and industry,the population and society,the history and culture,the types and contents of urban planning,the classification of urban land use and the land suitability assessment,the regional planning,the Urban—rural master plan,the regulatory detailed planning and so on.

编 码：AR05038

Code:AR05038

课程名称：城市生态环境规划

Course Title:Planning of Urban Ecological Environment

课程类别：专业核心

Course category:Required Core Course

学 分：2

Credit(s):2

开课单位：建筑学院

Offering College/School:College of Architecture

课程描述： 内容暂缺

Course description: There is no contents at present.



编 码：AR05039

Code:AR05039

课程名称：控制性详细规划与设计

Course Title:Regulatory Detailed Planning and Design

课程类别：专业核心

Course category:Required Core Course

学 分：3

Credit(s):3

开课单位：建筑学院

Offering College/School:College of Architecture

课程描述： 控制性详细规划 regulatoryplan 以城市总体规划或分区规划为依据，确定建设地区的土地使用性质、使用强度等控制指标、道路和工程管线控制性位置以及空间环境控制的规划。通过本课程的教学， 首先使学生了解编制控制详细规划的意义和基本理论，其次使学生掌握“控制性详细规划”（以下简称“控规”）编制的内容和方法，再次使学生初步理解城市设计内涵、掌握城市设计实践的基本内容和工作方法。转换城市设计对控制性详细规划指标的影响。

教学主要内容为：专业教师指导学生完成教学设计案例用地的控制性详细规划和城市设计任务。本课程重点培养学生对控制性详细规划与城市设计的理解，进一步提升学生的专业技能。

Course description: There is no contents at present.

编 码: AR05040

Code:AR05040

课程名称: 城市信息系统应用

Course Title:Application of Urban Information Systems

课程类别: 专业核心

Course category:Required Core Course

学 分: 2

Credit(s):2

开课单位: 建筑学院

Offering College/School:College of Architecture

课程描述: 《城市信息系统应用》课程介绍城市规划中的 GIS、GPS、RS 技术理论发展和应用技术。课程采用理论知识讲授和操作技术学习相结合的方式, 让学生在基本了解 GIS 基础知识的基础上学习 Arcgis 软件的基本操作和分析方法。

Course description: This course introduces a range of skills required for accessing, analysing, presenting and interpreting relevant data for urban planning. It teaches a range of analytical skills used in the analysis of spatial data in both social, economic and environmental domains, with the software ArcGis 10.



编 码: AR05041	Code: AR05041
课程名称: 城市社会与心理导论	Course Title: Introduction to urban society and psychology
课程类别: 专业核心	Course category: Required Core Course
学 分: 2	Credit(s): 2
开课单位: 建筑学院	Offering College/School: College of Architecture

课程描述: 我国当前城市建设的发展,对城市社会生活和心理产生了深刻影响。人们在城市中的各种活动使城市环境与城市居民之间、城市居民相互之间产生互动关系,这种互动关系对城乡规划的影响十分重要。城市社会与心理导论立足城市社会心理学,研究人与社会,寻求满足城市居住活动的精神需要的物质要素,构建可持续发展的人类住区的秩序,探索城市社会与居民心理的演变进程、模式及其规律。

本课程围绕城市社会学、社会心理学等基本概念、理论和研究方法,结合社会实践调查进行深入研究,加强学生对人际交往、社区、城市化与社会空间结构、老龄化社会、城市的决策过程、社会指标等方面的认识。

本课程适合作为城市规划、城市建设、城市管理等专业的专业选修课程,也可供对城市社会心理感兴趣的等人士研究参考。

Course description: The development of urban construction in China has a profound impact on the social life and psychology of the city. People in the city of various activities to the urban environment and urban residents, urban residents interact with each other, this interactive relationship between urban and rural planning is very important. The introduction of urban society and psychology is based on the social psychology, the study of people and society, the material elements that meet the spiritual needs of the urban living.

This course is based on the basic concepts, theories and methods of urban sociology, social psychology, and social practice. The research is carried out on the aspects of interpersonal communication, community, urbanization and social space structure, aging society, city's decision-making process and social index.

This course is suitable for urban planning, urban construction, urban management and other professional elective courses, but also for the urban social psychology and other people interested in the study of reference.

编 码：AR05042

Code:AR05042

课程名称：城乡基础设施规划

Course Title:Planning of Urban and Rural Infrastructure

课程类别：专业核心

Course category:Required Core Course

学 分：2

Credit(s):2

开课单位：建筑学院

Offering College/School:College of Architecture

课程描述： 内容暂缺

Course description: There is no contents at present.



编 码: AR06004**Code:**AR06004**课程名称:** 城市地理学**Course Title:**Urban Geography**课程类别:** 专业核心**Course category:**Required Core Course**学 分:** 2**Credit(s):**2**开课单位:** 建筑学院**Offering College/School:**College of Architecture

课程描述: 通过本门课程学习,初步使学生了解城市的空间布局、城市化、城市土地利用等城市系统科学,培养学生的城市空间观念,从而进一步为城市规划、管理与设计打下了坚实基础。能力培养要求包括:分析能力——使学生能够运用课程所学知识,了解世界人文地理学发展的动态,能够拓宽学生的思路,避免成为“井底之蛙”;表达能力——以 presentation 的形式,让学生有机会向同学或外界展示自身所学的成果,从而达到锻炼表达能力的目的;写作能力——数篇论文的写作使学生熟悉简单科研论文的写作格式、引用格式以及其他写作要求。

Course description: This course enable students to understand the initial layout of urban space, urbanization, urban land use and other theories of this systems science, and to develop students the concept of urban space . This course could lay a solid foundation for further study of urban planning, management and design etc. Ability requirements include: analytical ability -----to enable students to apply knowledge to understand the dynamic both demotic and overseas development of nature and human geography, and to broaden the views of students ; presentation ability----- in the form of presentation, students have the opportunity to demonstrate to the outside world what they have learned , then we can achieve the purpose of training presentation ability ; writing ability--- writing a few articles to familiarize students with a simple research paper writing formats, reference formats, and other writing requirements .

编 码: AR06007**Code:**AR06007**课程名称:** 城市规划原理 I**Course Title:**Urban Planning Principles**课程类别:** 学类核心**Course category:**Major Survey Course**学 分:** 2**Credit(s):**2**开课单位:** 建筑学院**Offering College/School:**College of Architecture

课程描述: 这是一门为建筑学专业学生开设的专业基础课,通过本课程的教学,使学生初步认识城市各组成要素及特点,了解城市规划学科发展的历程,熟悉城市规划的基本概念,掌握城市规划各层次规划的主要工作内容、工作方法、步骤,建立正确的规划观念,初步具备较全面的城市规划基础理论。教学的主要内容为城市与城市规划的概念、城市规划学科的产生和发展、城市规划各层次的工作内容和编制方法、城市构成与用地规划、城市总体布局、城市历史文化保护规划、城市道路与交通、城市规划的实施等。

Course description: his is a course set for the architecture students,through the conducting and teaching, the students will basicly know the constitute and characters of cities,and will acquire the development of this subject and the basic concept of city plannig.Also they will seize the the primary contents,working methods of planning on every level,establish a correct concept of planning,get a general theory about city planning.The primary contents include the cities and city planning,the starting and development of this subject,the working contents on every level,working methods,the consisting of cities,land use planning,master planning,city historical culture protecting planning,roads and trasportation,actualizing of urban planning.

编 码: AR06007

Code:AR06007

课程名称: 城市规划原理 I

Course Title: Principle of Urban Planning I

课程类别: 学类核心

Course category: Major Survey Course

学 分: 2

Credit(s): 2

开课单位: 建筑学院

Offering College/School: College of Architecture

课程描述: 城市规划原理 I 是面向城乡规划及相关专业开设的核心理论课。课程对城市及城乡规划学科的产生和发展进行了全面的讲述, 并重点对居住区规划原理进行了详细讲授。

它的基本理论、基本原理和方法是学生后续课程必备的基础, 也是培养学生专业基本素养的基础课程。课程的目标是引导学生构建专业理论的基本构架, 逐步提高学生的专业素养, 并重点培养学生对于详细规划知识的认识, 为后续设计课程奠定良好的理论基础。

Course description: This course is a basic required course for Urban Planning and Landscape Planning subjects. Through this course, students should understand the work contents and planning methods of the urban detailed planning, and be familiar with the detailed planning for a city of the basic concepts and technical specifications, grasp the ability of urban detailed planning.

编 码: AR06012	Code: AR06012
课程名称: 城市设计	Course Title: Urban Design
课程类别: 学类核心	Course category: Major Survey Course
学 分: 3	Credit(s): 3
开课单位: 建筑学院	Offering College/School: College of Architecture

课程描述: 城市设计是城市规划专业的核心课程之一。

城市设计与城市规划密切相关，随着城市规划的外延与内涵不断扩大，城市规划的重心逐渐偏向社会、经济、环境和地域发展，但城市设计——城市空间及物质形态作为城市规划思想的物质体现和城市建设的直接成果，贯穿于城市规划的全过程，涉及城市规划、建筑学、景观学、市政工程学等相关学科，是当代城市建设最重要的实践类型。

在当今的城市建设实践中，城市设计作为可以连接“城市规划”、“建筑设计”和“景观设计”的枢纽体系，承担着重要的协同平衡作用。同时，作为一门综合性学科，涉及较多其他领域学科，且具有多而杂的交叉课程，即便是在城市规划专业内部，也需要联系城市规划专业各相关课程，将其所涉及的知识和技能综合运用到城市设计的过程及表达上来，以便在进行设计过程及最终设计成果展示中，能综合且直观地反映出城市规划学科的专业特色。

多元化的理论探索、人文视野的扩展、技术方法的改进以及富于地方性的建设实践构成当代城市设计实践发展的新方向。

Course description: Urban design is one of the core of city planning courses.

Urban design is based on the city as research subjects and it is the overall concept and arrangements of the urban 's shape and the space enviroment throughout the whole process of urban planning, involving urban planning, architecture, Landscape Architecture, municipal engineering and other related disciplines . First of all, through case teaching course to learn more about the theory and practice of urban design development, master the urban space, landscape, environmental design of the basic method, and depends on the specific practice of urban design projects, and research through the organization of research familiar with city life, people's behavior activity characteristics, on a certain geographical space, the various elements of a comprehensive physical design, to create a good urban space environment, shape the overall urban design and the macro mode of thinking, the establishment of urban design professional core values.

编 码: AR06015**Code:**AR06015**课程名称:** 村镇规划**Course Title:**Rural Planning**课程类别:** 专业核心**Course category:**Required Core Course**学 分:** 3**Credit(s):**3**开课单位:** 建筑学院**Offering College/School:**College of Architecture

课程描述: 村镇规划是社会、经济、科技等长期发展的总体部署，是指导村镇发展和建设的基本依据。

课程的主要内容应包括：针对我国村镇规划建设的实际，系统地阐述了村镇规划的基本概念、规划设计的基本理论和方法、村镇规划的实施与管理，古镇、古村落的保护与开发，节能省地，环境保护，技术经济等问题。具体内容包括村镇与村镇规划的基本概念，村镇规划的指导思想和编制原则，村镇规划与新农村建设，村镇规划的准备工作，村镇总体规划，镇区建设规划，村庄建设规划，旧村镇改造与更新以及古镇、古村落的保护与开发，村镇规划建设中的节能省地及环境保护，村镇规划中的技术经济工作，村镇规划实例介绍和村镇规划的实施、管理等。

Course description: Town planning is a social, economic, scientific and technological development of the overall deployment of long-term, is to guide the development and construction of towns fundamental basis.

The main elements of the program include: planning for the actual construction of towns and villages, systematically expounded the basic concepts of town planning, the basic theory and methods of planning and design, implementation and management of town planning, the town, the ancient village of protection and development, energy province, environmental, technical and economic problems. Topics include basic concepts of towns and town planning, ideas and principles guiding the preparation of town planning, town planning and new rural construction, town planning preparations, village master plan, township construction planning, village construction planning, renovation of old towns and updates and town, protection and development of ancient villages, rural planning and construction of energy-saving and environmental protection land, town planning of technical and economic work, presentations and examples of town planning town planning implementation and management.

编 码: AR06029**Code:**AR06029**课程名称:** 建筑安全**Course Title:**Construction security**课程类别:** 专业核心**Course category:**Required Core Course**学 分:** 2**Credit(s):**2**开课单位:** 建筑学院**Offering College/School:**College of Architecture

课程描述: 这是一门为建筑学专业学生开设的专业选修课,通过该课程的教学使学生能够系统了解建筑安全知识,尤其对建筑防火、抗震与防灾有较为深入的理解,在建筑设计中既要做到适用经济美观,同时又要保证建筑的各项安全性。课程主要内容为:建筑防火及疏散、建筑抗震与抗风设计、防日照过度与不足、建筑防水防潮、电气安全与建筑物防雷和房屋装饰中的安全性等。

Course description: This is an optional course for major in architecture, aiming at the students' systemic understanding of building's safety information, especially in building fire protection, seismic and disaster prevention. It includes the conception that buildings should be not only applicable, economic and beautiful, but also safe. The main contents of this course as follows: building fire protection and evacuation; seismic and wind-resistant design; excessive and inadequate anti-sunshine; waterproof and moisture-proof; electrical safety and building lightning protection; security in house decoration and so on.

编 码: AR06030

Code:AR06030

课程名称: 建筑材料

Course Title:Building materials

课程类别: 学类核心

Course category:Major Survey Course

学 分: 2

Credit(s):2

开课单位: 建筑学院

Offering College/School:College of Architecture

课程描述: 建筑材料是建筑学专业的一门主干专业课程, 它的任务是使学生能正确认识, 合理使用建筑材料, 并能掌握建筑材料的检验方法、运输和保管知识, 为学生学习专业知识和职业技能, 提高全面素质和继续学习的能力打下一定的基础。

Course description: Building materials is a main specialized course architecture speciality, its task is to make students can correct understanding, rational use of building materials, and can grasp the inspection method of building materials, transportation and keeping knowledge, for students to learn professional knowledge and professional skills, improve the comprehensive quality and ability to continue to study to lay a certain foundation.



编 码: AR06049**Code:**AR06049**课程名称:** 建筑物理 II (声环境)**Course Title:** Architectural physics II (Acoustic Environment)**课程类别:** 专业核心**Course category:** Required Core Course**学 分:** 1.5**Credit(s):**1.5**开课单位:** 建筑学院**Offering College/School:** College of Architecture

课程描述: 本课程是为建筑学专业开设的一门专业技术课,通过该课程的教学,使学生能够掌握建筑声环境的基本概念,基本理论和基本计算技能,为学生以后从事与建筑环境相关的设计与研究打下必不可少的基础。通过建筑声环境整个教学过程逐渐培养学生分析问题,概括问题的能力。培养学生能比较熟练的在设计过程中较好的利用环境特点,来创造良好的建筑声环境。主要内容为室内声学设计和噪声控制的基本方法和基本原理。主要包括建筑声学基本知识;建筑隔声;建筑吸声和厅堂音质设计等。

Course description: This is a basic course for majors of architecture, aiming at the students' mastery of the basic concepts and theories of architecture acoustic environment and the development of their calculate techniques in architecture acoustic environment, thus laying a solid foundation for their study and research about architecture environment in the future. The study of this course develops the students' ability to analyze and solve practical problems, and ability of using environmental feature to create expertly fine acoustic environment in design progress. The main contents of this course are the basic approaches and principles of acoustical design and noise abatement, including elementary knowledge of architectural acoustic, sound insulation for building, sound absorption for building and acoustic design of auditorium ect.

编 码: GE13041

Code:GE13041

课程名称: 室内设计及原理

Course Title:Interior Design and Principles

课程类别: 专业核心

Course category:Required Core Course

学 分: 2

Credit(s):2

开课单位: 建筑学院

Offering College/School:College of Architecture

课程描述: 室内设计原理是根据建筑物的使用性质、所处环境和相应标准,运用物质技术手段和建筑美学原理,创造功能合理、舒适优美、满足人们物质和精神生活需要的室内环境。这一空间环境既具有使用价值,满足相应的功能要求,同时也反映了文脉、建筑风格、环境气氛等精神因素。

Course description: Principle of Interior design is based on the structure of the use of nature, environment and the corresponding standards, using the material technical means and architectural aesthetics principle, create function reasonable, comfortable beautiful, satisfy people material and spiritual life need of the indoor environment. This one space environment has both use value, meet the functional requirements, but also reflects the mental factors such as context, architectural style, the environment atmosphere

编 码: CE04016**Code:**CE04016**课程名称:** 微生物学**Course Title:**Microbiology**课程类别:** 学类核心**Course category:**Major Survey Course**学 分:** 3**Credit(s):**3**开课单位:** 环境科学与工程学院**Offering College/School:**College of Environmental
Science and Engineering

课程描述: 这是一门为给水排水专业学生开设的专业基础课。通过该课程的教学使学生能够掌握微生物学的基本概念、基本理论和基本实验技能。为学生学习相关后续专业课程打下必不可少的基础；通过整个教学过程逐渐培养学生分析、概括、处理给水排水领域中与微生物相关问题的能力。主要内容重点介绍了微生物的形态、细胞结构及其功能。微生物的营养、呼吸、物质代谢、生长、繁殖、遗传与变异。废水与饮用水生物处理基本原理等。

Course description: This is a basic course for majors of water and waster water engineering. aiming at the students' mastery of the basic concepts. theories and experimental skills of microbiology. thus laying a solid foundation for their study of follow-up courses. The study of this course develops the students' ability to analyze. summarize and solve microbiological problems in the field of water and waster water engineering. The main contents of this course are the morphology. cell structure and function. nutrition. respiration. metabolism. growth. reproduction. heredity and variation of microorganism; the basic principles of biological treatment in waste water and drinking water.

编 码: ES04007 Code:ES04007

课程名称: 环工原理与设备 Course Title:Environmental Engineering Principle and Equipments

课程类别: 学类核心 Course category:Major Survey Course

学 分: 4 Credit(s):4

开课单位: 环境科学与工程学院 Offering College/School:College of Environmental Science and Engineering

课程描述: 该课程是环工和化工类及相近专业一门重要的技术基础课。此课程,不是教学生如何合成得到新物质,如何提取新物质,如何表征新物质,这是化学家的事。化学(环境)工程研究的是,如何把化学家们的小试研究成果,开发放大为中试,再开发为生产规模,是在科学实验与化(环)工生产之间架桥的工作,是直接为人类服务的创造价值的劳动。此课程,兼有“科学”与“技术”的特点,它是综合运用数学、物理、化学等基础知识,分析和解决化(环)工类型生产中各种物理过程的工程学科。在化(环)工类专门人才培养中,它承担着工程科学与工程技术的双重教育任务。本课程强调工程观点、定量运算、实验技能及设计能力的培养,强调理论联系实际,作为一门综合性技术学科的一个重要组成部分,主要研究各单元操作的基本原理,所用的典型设备结构,工艺尺寸设计和设备的选型的共性问题,是一门重要的专业基础课。

Course description: Principle and Equipment of Environmental Engineering is an important technology basic curriculum which is the study of environmental engineering. chemical engineering and close speciality. design and management methods and means. The task of this course is not to teach how to synthesis new matter. or how to extract new matter. or how to attribute new matter. which belong to the chemistries. Chemical (Environmental) engineering is to study how to enlarge the results succeeded in the laboratory by the chemistries to the pilot-scale results. or develop into real production scale. We can say chemical engineering works like a bridge between the scientific experiment and chemical engineering production. it can directly create value for the human being. There are characteristic of “science” and “technology” concurrently in the curriculum. It is an engineering curriculum that analyses and solves all kinds of physics process in chemical (environmental) engineering production by mathematics. physics. chemistry and so on. It has on its shoulders education task of both engineering science and engineering technology. Engineering view. fix quantify operation. experiment skill and design capability is stressed in the curriculum. and theory contact practice is stressed too. As an importance composing part of a compositive technology knowledge. it study mostly the common problems about basic principle of all unit operation. model equipment structure used in chemical engineering. design and selection of chemical equipment. It is an important special basic curriculum.

编 码: ES05006 **Code:** ES05006

课程名称: 环工原理与设备 **Course Title:** Unit Operations of Environmental Engineering III

课程类别: 学类核心 **Course category:** Major Survey Course

学 分: 4 **Credit(s):** 4

开课单位: 环境科学与工程学院 **Offering College/School:** College of Environmental Science and Engineering

课程描述: 该课程是环工和化工类及相近专业一门重要的技术基础课。此课程，不是教学生如何合成得到新物质，如何提取新物质，如何表征新物质，这是化学家的事。化学（环境）工程研究的是，如何把化学家们的小试研究成果，开发放大为中试，再开发为生产规模，是在科学实验与化（环）工生产之间架桥的工作，是直接为人类服务的创造价值的劳动。此课程，兼有“科学”与“技术”的特点，它是综合运用数学、物理、化学等基础知识，分析和解决化（环）工类型生产中各种物理过程的工程学科。在化（环）工类专门人才培养中，它承担着工程科学与工程技术的双重教育任务。本课程强调工程观点、定量运算、实验技能及设计能力的培养，强调理论联系实际，作为一门综合性技术学科的一个重要组成部分，主要研究各单元操作的基本原理，所用的典型设备结构，工艺尺寸设计和设备的选型的共性问题，是一门重要的专业基础课。

Course description: Principle and Equipment of Environmental Engineering is an important technology basic curriculum which is the study of environmental engineering. chemical engineering and close speciality. design and management methods and means. The task of this course is not to teach how to synthesis new matter. or how to extract new matter. or how to attribute new matter. which belong to the chemistries. Chemical (Environmental) engineering is to study how to enlarge the results succeeded in the laboratory by the chemistries to the pilot-scale results. or develop into real production scale. We can say chemical engineering works like a bridge between the scientific experiment and chemical engineering production. it can directly create value for the human being. There are characteristic of “science” and “technology” concurrently in the curriculum. It is an engineering curriculum that analyses and solves all kinds of physics process in chemical (environmental) engineering production by mathematics. physics. chemistry and so on. It has on its shoulders education task of both engineering science and engineering technology. Engineering view. fix quantify operation. experiment skill and design capability is stressed in the curriculum. and theory contact practice is stressed too. As an importance composing part of a compositive technology knowledge. it study mostly the common problems about basic principle of all unit operation. model equipment structure used in chemical engineering. design and selection of chemical equipment. It is an important special basic curriculum.

编 码: ES05008**Code:** ES05008**课程名称:** 环境监测与分析化学 **Course Title:** Environmental Monitoring and Analytical Chemistry
学**Course category:** Major Survey Course**课程类别:** 学类核心**Credit(s):** 4**学 分:** 4**Offering College/School:** College of Environmental Science and Engineering**开课单位:** 环境科学与工程学院

课程描述: 环境监测与分析化学是环境科学、环境工程专业的主干课程之一。是建立在分析化学基础上且实践性很强的一门课程。既是一门专业课又是环境工程、环境污染治理、环境评价、环境管理等课程的基础课程。课程主要内容有：酸碱滴定、络合滴定、氧化还原滴定、重量分析与沉淀滴定、电位分析、光度分析、色谱分析、原子光谱分析、误差及分析数据的统计处理、水和废水监测、空气和废气监测、固体废物监测、土壤质量监测、环境污染生物监测、噪声与放射性监测、环境污染应急与自动监测、环境监测管理和质量保证等。环境监测课程要求学生掌握相关环境监测的基本理论和技术。培养从事环境监测与评价以及环境管理的能力。为后续专业课程的学习和从事污染控制以及环境管理等工作打下牢固的专业基础。

Course description: Environmental monitoring and analytical chemistry is one of the main courses of environmental science. and environmental engineering. It is built on the basis of analytical chemistry and is a very practical course. It is not only a specialized course. but also a basic course of environmental engineering. environmental pollution control. environmental assessment. environmental management and so on. The main contents of this course are: acid-base titration. complexometric titration. oxidation-reduction titration. gravimetric analysis and precipitation titration. potentiometric analysis. photometric analysis. chromatographic analysis. atomic spectral analysis. statistical treatment of error and analyze data. water and wastewater monitoring. air and exhaust gas monitoring. solid waste monitoring. soil quality monitoring. biological monitoring of environmental pollution. noise and radiation monitoring. emergency response and automatic monitoring of environmental pollution. environmental monitoring management and quality assurance. The course requires students to master the relevant basic theory and techniques of environmental monitoring. enhance the students' capacity in environmental monitoring. evaluation and environmental management. and lay a solid technical foundation for the follow-up study and work on pollution control and environmental management.

编 码: ES05009 Code:ES05009

课程名称: 环境工程微生物 Course Title:Environmental Engineering Microbiology

课程类别: 学类核心 Course category:Major Survey Course

学 分: 3 Credit(s):3

开课单位: 环境科学与工程学院 Offering College/School:College of Environmental Science and Engineering

课程描述: 环境工程微生物是环境类专业的一门重要的专业基础课。它是环境污染治理与微生物学相结合而产生发展起来的一门边缘性学科。其重点是研究污染控制工程中涉及到的微生物学问题。是在普通微生物学的基础上。着重研究生长在自然环境、受污染环境 and 人工处理系统中的微生物生态、环境的自净作用、环境污染及其生物处理工程中的微生物学原理。

本课程在学习微生物学原理的基础上。着重讨论与环境污染控制有关的微生物学问题。

Course description: Environmental Engineering Microbiology is a basic and important course of higher engineer course school. It integrates and develops from two parts: environment contamination control and microbiology. The emphasis of this course is the problem of microbiology in environment contamination control engineer design. On the base of common Microbiology. in three field: natural environment and contaminated environment and the system of manual disposal. microbiology of contamination control study the theory of microbiology in zoology microorganism and self-purification of environment and environment contamination and the engineer of microorganism disposal.

This course mainly studies the problem of microbiology in environment contamination control after we have learned the theory of common microbiology.

编 码: ES05011**Code:** ES05011**课程名称:** 大气污染控制工程 **Course Title:** Air pollution control Engineering**课程类别:** 专业核心**Course category:** Required Core Course**学 分:** 3**Credit(s):** 3**开课单位:** 环境科学与工程学院 **Offering College/School:** College of Environmental Science and Engineering

课程描述: 《大气污染控制工程》是环境类专业的一门专业核心课。通过该课程的教学使学生能够掌握大气污染控制的基本理论、各种控制方法的过程分析及典型控制设备的工艺设计计算。并培养学生分析和解决大气污染控制工程问题的能力。结合大气污染控制工程实验、课程设计及毕业设计（论文）等其它教学环节。为学生进行大气污染控制工程设计、科研及技术管理打下必要的基础；主要内容包括大气扩散的基本原理。除尘技术的基本理论和气态污染物控制的基本原理及其方法。具体包括：大气污染物扩散模式、颗粒污染物控制技术基础、除尘装置、气态污染物控制技术基础、硫氧化物的污染控制、氮氧化物污染控制、挥发性有机物污染控制、城市机动车尾气污染控制。

Course description: Air Pollution Control Engineering is a compulsory professional courses for majors of environment. aiming at the students' mastery of the theories of air pollution control. methods of analysis and typical process control and the calculation of equipment design. The subject cultivate the students' ability of analyzing and solving the problems of air pollution control engineering. Combined with air pollution control engineering experiment. curriculum design and graduation design and other teaching methods. the students lay the necessary foundations of design of air pollution control engineering. scientific research and technical management. The main contents of this course are basic principles of atmospheric diffusion and dedusting technology. basic principles and methods of gaseous pollutant control. including diffusion models of air pollutants. control technology of particle contamination. the dust removal equipment. control technology of gaseous contaminants. pollution control of oxysulfide. nitrogen oxides. volatile organic compounds and urban vehicle emission controlling.

编 码: ES05012**Code:** ES05012**课程名称:** 水污染控制工程**Course Title:** Water pollution control engineering**课程类别:** 专业核心**Course category:** Required Core Course**学 分:** 3**Credit(s):** 3**开课单位:** 环境科学与工程学院 **Offering College/School:** College of Environmental Science and Engineering

课程描述: 《水污染控制工程》是环境工程学的重要组成部分。是环境工程专业的一门主干专业必修课。课程详细介绍了常用的物理、生物和化学处理方法。将污水水质指标、污水处理原理和工艺设计计算紧密结合。并对主要的处理工艺进行系统介绍。使学生全面系统地掌握不同水质的水处理理论和技术方法。通过本课程的学习并配合实验、课程设计、认识实习和生产实习等教学环节的教学。应使学生获得独立进行一般水污染控制工程（包括城市污水处理厂、工业废水处理厂或处理站）的规划、设计及运行管理的基本能力。并具备从事水污染控制技术方面的科学研究能力。

Course description: Water Pollution Control Engineering is an important part of environmental engineering and one of the main professional courses of environmental engineering major. This course enables students to master theory and technical methods of different water quality comprehensively and systematically by physical, biological and chemical treatment methods combined closely with the effluent water quality, sewage treatment and process design and calculation principles. Through this course, with the experiment, curriculum design, understanding practice and production of practice, students master the plan, design and operation and management ability of normal water pollution control engineering, including urban sewage treatment plants, industrial wastewater treatment plant. Besides, students will have the research capabilities to work in water pollution control technology field.

编 码: ES05017**Code:** ES05017**课程名称:** 环境影响评价与规划 **Course Title:** Environmental Impact Assessment and Planning
划**Course category:** Required Core Course**课程类别:** 专业核心**Credit(s):** 3**学 分:** 3**Offering College/School:** College of Environmental Science and Engineering**开课单位:** 环境科学与工程学院

课程描述: 环境影响评价与规划是环境学科一门重要课程。环境影响评价是指对规划和建设项目实施后可能造成的环境影响进行分析、预测和评估。提出预防或者减轻不良环境影响的对策和措施。进行跟踪监测的方法与制度。环境规划是环境管理的重要内容和主要手段。在协调经济社会发展与环境保护的关系中有着重要作用。

本课程目标要求学生掌握环境影响评价和规划的基本概念、基本原理和基本方法。该课程与实际工作联系紧密。将为未来从事环境影响评价工作、环境规划、环境监测工作、环境设计等方面工作奠定基础。

Course description: Environmental Impact Assessment and Planning is an important course for students that are major in Environmental Science and Engineering. Environmental impact assessment (EIA) is an analysis, forecast, and assessment of the possible impact—positive or negative—that a proposed planning or project may have on the environment. Environmental Planning (EP) is an important content of environmental management, which plays an important role in coordinating the relationship between economic, social development and environmental protection.

The main objects of this course is to understand the contents and technical methods of EIA and EP, including water environment impact assessment, environmental planning, ecological environmental impact assessment etc. and apply them to practical project analysis, environmental impact investigation, assessment and prediction, etc.

编 码: ES05018 **Code:** ES05018
课程名称: 环境毒理学 **Course Title:** Environmental toxicology
课程类别: 专业核心 **Course category:** Required Core Course
学 分: 3 **Credit(s):** 3

开课单位: 环境科学与工程学院 **Offering College/School:** College of Environmental Science and Engineering

课程描述: 这是一门为环境工程专业学生开设的专业任选课。通过该课程的教学使学生了解、掌握环境毒理学基本概念、基本原理、基本操作技能、最新进展及其研究方法。为学生今后的学习及工作实践打下宽厚的基础。课程首先介绍了诸如剂量-反应关系。毒物的吸收、分布、贮存和生物转化、靶器官毒性、致畸、致癌、致突变性以及风险评价等的基本概念和理论；其次针对杀虫剂、重金属和大气污染物等一些特殊污染物进行了讨论。

Course description: This is a professional elective course for major of environmental engineering. aiming at the students' mastery of the basic concepts and theories of environmental toxicology. the development of their operation techniques in environmental toxicity test. thus laying a solid foundation for their follow-up study and work. In the first part of the course. the basic concepts and theories of environmental toxicology will be covered including dose-response relationships. absorption of toxicants. distribution and storage of toxicants. biotransformation of toxicants. target organ toxicity. teratogenesis. mutagenesis. carcinogenesis and risk assessment. In the second part of the course. some specific substances relevant to this field will be discussed such as pesticides. heavy metals. and atmospheric pollutants.

编 码: ES05019**Code:** ES05019**课程名称:** 固体废物处理与处**Course Title:** Solid Wastes Treatment and Disposal**置****Course category:** Required Core Course**课程类别:** 专业核心**Credit(s):** 3**学 分:** 3**Offering College/School:** College of Environmental Science and Engineering**开课单位:** 环境科学与工程学院

课程描述: 这是一门为环境工程专业学生开设的专业核心课。通过该课程的教学使学生能够较系统地掌握固体废物“减量化、资源化、无害化”的基本方法、原理、工艺和设备。为学生提供处理处置过程中的新技术、理论和设计原理。培养学生分析和解决日益严重的固体废物基本问题。并为他们将来从事固体废物处理与处置工程、技术管理或科学研究奠定必要的基础；主要内容为固体废物的基本方法和基本原理。具体内容包括：固体废物的管理、固体废物的收运、固体废物的预处理、固体废物的物理化学处理、固体废物的生物处理、固体废物的热处理、固体废物的填埋处置等。

Course description: This is a domain course for the students majored of environmental technology. aiming at the students' mastery of the basic methods. theories. technologies and equipment of solid waste treatment and disposal for the principle of reduce. reuse and recycle. and the developing techniques. theories and design principles. thus settling a knowledge foundation for their analyzing and solving the basic problems in solid waste. and for their future work on solid waste treatment engineering. technique management and scientific research. The main contents of this course are the basic management. transport and pretreatment of solid waste. treatment technologies based on physiochemical. biological and heat. utilization and terminal disposal.

编 码: ES05020**Code:** ES05020**课程名称:** 环境影响评价与规划 **Course Title:** Environmental Impact Assessment and Planning**课程类别:** 专业核心**Course category:** Required Core Course**学 分:** 3**Credit(s):** 3**开课单位:** 环境科学与工程学院 **Offering College/School:** College of Environmental Science and Engineering

课程描述: 环境影响评价与规划是环境学科一门重要课程。环境影响评价是指对规划和建设项目实施后可能造成的环境影响进行分析、预测和评估。提出预防或者减轻不良环境影响的对策和措施。进行跟踪监测的方法与制度。环境规划是环境管理的重要内容和主要手段。在协调经济社会发展与环境保护的关系中有着重要作用。

本课程目标要求学生掌握环境影响评价和规划的基本概念、基本原理和基本方法。该课程与实际工作联系紧密。将为未来从事环境影响评价工作、环境规划、环境监测工作、环境设计等方面工作奠定基础。

Course description: Environmental Impact Assessment and Planning is an important course for students that are major in Environmental Science and Engineering. Environmental impact assessment (EIA) is an analysis, forecast, and assessment of the possible impact—positive or negative—that a proposed planning or project may have on the environment. Environmental Planning (EP) is an important content of environmental management, which plays an important role in coordinating the relationship between economic, social development and environmental protection.

The main objects of this course is to understand the contents and technical methods of EIA and EP, including water environment impact assessment, environmental planning, ecological environmental impact assessment etc. and apply them to practical project analysis, environmental impact investigation, assessment and prediction. Etc.

编 码: CE04022	Code:CE04022
课程名称: 机械设计基础 A	Course Title:Fundamentals of Mechanical Design (A)
课程类别: 学类核心	Course category:Major Survey Course
学 分: 3	Credit(s):3
开课单位: 机械与运载工程 学院	Offering College/School:College of Mechanical & Vehicle Engineering

课程描述: 该课程是建筑环境与能源应用工程专业的学类核心课程, 以工程图学、工程材料、工程力学等为前导课程, 为后续专业课程学习打下基础。该课程主要包括机构学原理、机械零部件和系统设计等内容, 学生需要了解一般机械装置的常见机构分析、通用零部件设计等共性问题, 理解常用机构及通用零部件的工作原理及特点, 掌握其设计原理及计算方法, 并能灵活运用相关标准、规范、手册、图册等进行零部件和简单机械系统的设计。通过学习本课程, 学生学会分析机械装置, 获得机械设计的基本知识, 锻炼和提升工程分析与设计、自主学习与创新、工程表达与交流等多方面能力。

Course description: This course is one of the core courses in General Category for students who major in Building Environment and Energy Engineering. Led by Engineering Graphics, Engineering Materials, Engineering Mechanics, this course lays the foundation for the follow-up professional courses. The main contents include theories of mechanisms and design of elements and mechanical system. Students need to know the common knowledge about general machinery, such as analysis of common mechanisms and design of universal elements. Also, they should understand the operating principles of common mechanisms and general parts. By mastering the design principles and calculating methods, they can utilize the relevant standards, criteria, manuals and atlas to design machine elements and simple mechanical systems. Through this course, students can acquire the basic knowledge of mechanical design. The course can foster and improve the students' abilities in engineering analysis and design, independent learning and innovation, engineering expression and communication.

编 码: CH04020**Code:**CH04020**课程名称:** 工程制图**Course Title:**Engineering Graphics**课程类别:** 学类核心**Course category:**Major Survey Course**学 分:** 3**Credit(s):**3**开课单位:** 机械与运载工程
学院**Offering College/School:**College of Mechanical & Vehicle
Engineering

课程描述: 工程图学是一门研究用投影法绘制和阅读工程图样, 以及解决空间几何问题的理论和方法的学科。是高等工科院校中一门既有理论又有实践的重要专业技术基础课。本课程是非机械非土木专业的一门必修的专业技术基础课。包括三部分投影理论、制图基础、计算机绘图。其目的是培养学生具有绘图、读图和空间想象能力, 是学习后续课程、完成课程设计、毕业设计不可缺少的一门重要课程。

Course description: This course is a subject of studying on drawing with projection, reading engineering graphics, and theories and methods of solving spatial geometrical problems, it is an important major technical basic course with both theory and experiment in colleges of engineering, the objective is developing students' abilities in drawing, reading graphics and spatial imagination. It includes Descriptive Geometry, Mechanical Drafting and Computer Drawing.

编 码: CH04020	Code:CH04020
课程名称: 工程制图	Course Title:Technical Drawing
课程类别: 学门核心	Course category:Introductory Major Course
学 分: 3	Credit(s):3
开课单位: 机械与运载工程 学院	Offering College/School:College of Mechanical & Vehicle Engineering

课程描述: 工程图学是一门研究用投影法绘制和阅读工程图样, 以及解决空间几何问题的理论和方法的学科。是高等工科院校中一门既有理论又有实践的重要专业技术基础课。本课程是非机械非土木专业的一门必修的专业技术基础课。包括三部分投影理论、制图基础、计算机绘图。其目的是培养学生具有绘图、读图和空间想象能力, 是学习后续课程、完成课程设计、毕业设计不可缺少的一门重要课程。

Course description: This course is a subject of studying on drawing with projection, reading engineering graphics,and theories and methods of solving spatial geometrical problems,it is an important major technical basic course with both theory and experiment in colleges of engineering,the objective is developing students'abilities in drawing, reading graphics and spatial imagination. It includes Descriptive Geometry, Mechanical Drafting and Computer Drawing.

编 码: EC04022

Code:EC04022

课程名称: 工程图学

Course Title:Engineering Graphics

课程类别: 学类核心

Course category:Major Survey Course

学 分: 3

Credit(s):3

开课单位: 机械与运载工程
学院

Offering College/School:College of Mechanical & Vehicle
Engineering

课程描述: 内容暂缺

Course description: There is no contents at present.



编 码: EM04008	Code: EM04008
课程名称: 弹性力学	Course Title: Elastic mechanics
课程类别: 学类核心	Course category: Major Survey Course
学 分: 4	Credit(s): 4
开课单位: 机械与运载工程 学院	Offering College/School: College of Mechanical & Vehicle Engineering

课程描述: 本课程是工程力学专业的专业核心课程,以中学力学、理论力学和材料力学为先导课程,通过该课程的教学使学生能够掌握高等力学的基本概念、基本理论和基本技能,为该专业学生学习后续专业课程,包括板壳理论、计算力学、塑性力学和振动力学等奠定基础;通过学习本课程,学生学会了分析问题和解决问题的能力,锻炼和提升了运用高等数学和高等力学的知识来解决复杂工程问题的能力。主要包括:应力应变理论、本构关系、力学问题的建立和求解、弹性平面问题、弹性空间问题、柱形杆的扭转和弯曲等。

Course description: This course is one of the core courses for the major of Engineering Mechanics. By this course, one should understand the basic concepts, basic theory and basic method for advanced mechanics. On the same time, one can have the basic capability to study the following courses such as plate-shell theory, calculation mechanics, plastic mechanics and vibration mechanics etc. The most important is that one should have the ability to solve the complex engineering problems after this course. The content in this course including theory of stress and strain, constitutive relationship, construction and solve for mechanics problems, elastic plane problems, elastic space problems, torsion and bend of cylindrical pole etc.

编 码: EP04010	Code:EP04010
课程名称: 机械原理 A	Course Title:Principles of Mechanism
课程类别: 学类核心	Course category:Major Survey Course
学 分: 3	Credit(s):3
开课单位: 机械与运载工程 学院	Offering College/School:College of Mechanical & Vehicle Engineering

课程描述: 本课程是能源与动力工程专业的专业核心课程,以机械工程图学、理论力学为前导课程,为专业课程学习提供机构学和机械力学方面的基础。

本课程主要包括机构的结构分析、机构的运动分析和力分析及常用机构设计等内容。学生需了解常用机构的工作特性,理解机构的组成原理,掌握常用机构的设计方法和力学分析方法,并能灵活运用课程知识设计简单的机械运动系统。通过学习本课程,学生学会机械运动和力学的基本分析和设计方法,获得应用相关科学原理并采用合适科学方法针对工程问题进行研究的能力,锻炼和提升就工程问题与业界同行和社会公众进行有效沟通和交流能力。

Course description: This course is a core curriculum for major of energy and power engineering and the leading courses of which are mechanical engineering drawings, theoretical mechanics, it provide mechanism and mechanical aspects of the foundation for professional courses learning.

This course mainly includes the structural analysis, kinematic analysis and force analysis of mechanism, common mechanism design. Students are required to understand the composition and the working principle of the mechanism, to grasp the method of mechanism design and analysis and to design simple mechanical motion system by flexible using the curriculum knowledge. Through this course, students learn the basic analysis and design methods of mechanical kinematics and dynamics, to obtain ability the application of scientific principles and methods to study the engineering problems, exercise and promotion effective communication skills with industry peers and the public on engineering issues.

编 码: EP04011	Code: EP04011
课程名称: 机械设计 A	Course Title: Mechanical Design
课程类别: 学类核心	Course category: Major Survey Course
学 分: 3	Credit(s): 3
开课单位: 机械与运载工程 学院	Offering College/School: College of Mechanical & Vehicle Engineering

课程描述: 本课程是为能源动力专业本科学生开设的重要专业核心课,以机械工程图学、工程材料、材料力学、互换性与测量技术基础、机械原理等为前导课程,为后续专业课程学习提供机械零部件工作原理、结构设计和强度计算等方面的基础。主要内容包括机械设计预备知识,机械连接、机械传动、轴系零部件及其他通用零部件和系统的设计。学生需要了解一般机械装置的常见机构分析、通用零部件设计等共性问题,理解常用机构及通用零部件的工作原理及特点,掌握通用机械零件的设计原理、方法和机械设计的一般规律;并能灵活运用相关标准、规范、手册、图册等进行零部件和简单机械系统的设计。通过学习本课程,学生学会分析机械装置,获得机械设计的基本知识,锻炼和提升工程分析与设计、自主学习与创新、工程表达与交流等多方面能力。

Course description: This is a major compulsory courses for the students in the Specialty of the Energy Power. Led by Mechanical Engineering Graphics、Engineering Materials、Mechanics of Materials、Fundamentals of Interchangeability and Measurement Technology、Mechanical Principles,this course lays the foundation of working principle、 structure design and strength calculation of mechanical parts for the follow-up professional courses learning. Its mainly contents include pre-knowledge for mechanical design, design for mechanical connection, mechanical transmission, shaft parts and other common components and their systems. Students need to know the common knowledge about general machinery, such as analysis of common mechanisms and design of universal elements. Also, they should understand the operating principles of common mechanisms and general parts,By mastering the design principle and method of general machinery parts and the general law of mechanical design, they can utilize the relevant standards、criteria、manuals and atlas to design machine elements and simple mechanical systems. Through this course, students can acquire the basic knowledge of mechanical design. The course can foster and improve the students' abilities in engineering analysis and design, independent learning and innovation, engineering expression and communication.

编 码: EP04012	Code:EP04012
课程名称: 理论力学 A	Course Title:Theoretical Mechanics A
课程类别: 学类核心	Course category:Major Survey Course
学 分: 3	Credit(s):3
开课单位: 机械与运载工程 学院	Offering College/School:College of Mechanical & Vehicle Engineering

课程描述: 本课程是一门为能源与动力等非力学专业学生开设的力学基础课程, 以高等高等数学、普通物理学为先导课程。为材料力学、机械设计等后续课程学习提供理论基础。本课程主要包括静力学、运动学和动力学等知识。通过本课程学习, 使学生能掌握静力学、运动学及动力学的基本概念、基本理论及分析方法, 为学生学习后续专业课程如材料力学等打下基础。通过理论力学的教学, 逐渐培养学生将复杂的工程实际问题抽象简化为便于计算的力学模型, 并进行数学求解的能力。培养学生基于基本概念和公理进行逻辑推理的能力、独立思考以及创新的能力。

Course description: This course is one of the basic Mechanics courses for students who major in Energy and Power Engineering . Led by Advanced Mathematics and Physics, this course lays the foundation for the follow-up professional courses, such as Mechanics of Materials and Fundamentals of Mechanical Design. The main contents include theories of statics, kinematics and dynamics. Learning through this course, enable students to master the basic concepts, theories and analytical methods of statics, kinematics and dynamics; Lay foundations for the subsequent courses such as material mechanics, structural mechanics. Through theoretical mechanics teaching, students will gradually develop abilities of simplifying complex engineering problems into simply mechanical model for the computing purpose, and that of solving mathematical problems as well. To develop the students' abilities of logical reasoning based on the basic concepts and axioms, and that of independent thinking and innovation.

编 码: EP04013	Code:EP04013
课程名称: 材料力学 A	Course Title:Mechanics of Materials
课程类别: 学类核心	Course category:Major Survey Course
学 分: 3	Credit(s):3
开课单位: 机械与运载工程 学院	Offering College/School:College of Mechanical & Vehicle Engineering

课程描述: 本课程是一门为工程力学、机械、材料、土木等理工科专业开设的专业基础必修课。通过该课程的学习,学生能够掌握固体力学的基本概念及一维问题——杆件的强度、刚度的计算,为学生学习相关的后续专业课程,如弹性力学和实验应力分析等打下必不可少的基础。通过材料力学的教学过程逐步培养学生分析、概括以及解决问题的能力。主要内容为杆件的四个基本变形的的基本分析方法。

Course description: Mechanics of Materials is a required basic specialized course for engineering mechanics, machinery, materials and civil engineering specialties. Through this course, students are required to master the calculating skills on the strength, stiffness of bars and the fundamental theories for the follow-up specialized courses such as Elasticity and Experimental Stress Analysis, and to develop the ability to analyze and resolve problems. The main contents of the course include four basic deformations of bars.

编 码: EP04014	Code: EP04014
课程名称: 流体力学	Course Title: Fluid Mechanics
课程类别: 学类核心	Course category: Major Survey Course
学 分: 3	Credit(s): 3
开课单位: 机械与运载工程 学院	Offering College/School: College of Mechanical & Vehicle Engineering

课程描述: 这是一门为动力工程、车辆工程专业学生开设的专业基础课, 本课程的任务是系统介绍流体的力学性质、流体力学的基本概念、基础理论和常用分析方法、有关的工程应用等; 为学生学习相关后续专业课程, 如汽车空气动力学、泵与风机、汽车空调等, 打下必不可少的基础; 通过本课程的学习培养学生对简单流体力学问题的分析和求解能力, 掌握一定的实验技能, 为今后学习专业课程, 从事相关的工程技术和科学研究工作打下坚实基础; 主要内容为流体的定义与性质, 流体静力学, 流体运动学, 流体动力学, 相似原理与量纲分析, 理想流体运动分析, 不可压缩粘性流体的内部流动, 不可压缩粘性流体的外部流动, 可压缩流体的流动, 水力管道分析等。

Course description: This is a fundamental course for majors of vehicle engineering. The duties of this course are to systematic introduce the mechanical characteristics of fluid, basic concepts and theories, common analysis method and engineering application of fluid,, thus laying a solid foundation for their study of follow-up courses such as aerodynamics of ground vehicle, pumps and fans, vehicle air condition etc. The study of this course develops the students' ability to analyze and solve practical fluid problems, to grasp necessary experiment skills, and to apply the basic fluid knowledge in engineering practice and scientific research The main contents of this course are the definition and characteristics of fluid, fluid statics, fluid kinematics, fluid dynamics, similarity theory and dimensional analysis, ideal fluid analysis, internal flow of incompressible viscous flow, external flow of incompressible viscous flow, compressible flow, hydraulic pipe analysis etc.

编 码: EP04015	Code: EP04015
课程名称: 工程热力学	Course Title: Engineering Thermodynamics
课程类别: 学类核心	Course category: Major Survey Course
学 分: 4	Credit(s): 4
开课单位: 机械与运载工程 学院	Offering College/School: College of Mechanical & Vehicle Engineering

课程描述: 工程热力学是能源与动力工程类专业的一门重要的技术基础课程。以高等数学和大学物理为前导课程,为内燃机学、锅炉原理和热动力设备排放污染及控制等后续课程学习提供理论基础。本课程主要包括绪论、热力学基本概念、工质的热力性质、热力学第一定律、工质的热力过程、热力学第二定律、气体或蒸汽压缩循环、蒸汽动力循环、气体动力循环、气体与蒸汽的流动、制冷循环、热力学基本理论在化学过程的应用等内容。学生需了解热力学基本概念,理解工质的热力性质和各种动力循环过程,掌握热力学第一定律、工质的热力过程、热力学第二定律,并能灵活运用热力学第一定律、工质的热力过程、热力学第二定律等。通过学习本课程,学生学会掌握热力学的基本规律,获得热能有效利用以及热能与其它能量转换规律的科学知识,锻炼和提升运用这些规律进行热流体工作过程分析的抽象、逻辑思维能力等。

Course description: This is an important technical foundation course of Energy and Power Engineering. Taking advanced mathematics and college physics as leading courses, the Engineering Thermodynamics can provide theoretical basis for further study of internal combustion engine, boiler principle and thermal power equipment emission pollution and control etc. The contents of the course include Introduction, the basic concepts of thermodynamics, refrigerant thermodynamic properties, first law of thermodynamics, refrigerant thermodynamic process, second Law of Thermodynamics, the compression cycle of gas or vapor, steam power cycle, gas power cycle, the flow of gas and steam, refrigeration cycle, the basic theory of thermodynamics in the chemical process applications, Etc. Through the study of this course, students learn to master the basic laws of thermodynamics, to obtain the effective use of heat energy and heat energy and other energy conversion laws of scientific knowledge, exercise and enhance the use of these laws to carry out the thermal fluid work process analysis of scientific abstract, logical thinking ability, etc..

编 码: EP04016	Code: EP04016
课程名称: 工程传热学 A	Course Title: Engineering Heat Transmission A
课程类别: 学类核心	Course category: Major Survey Course
学 分: 3	Credit(s): 3
开课单位: 机械与运载工程 学院	Offering College/School: College of Mechanical & Vehicle Engineering

课程描述: 传热学是研究热量传递过程规律的一门科学, 研究内容包括传热的三种基本方式(热传导、热对流、热辐射)、实际传热过程的规律及控制。“传热学”是热能与动力工程、机械工程专业本科生的重要专业基础课, 通过该课程的教学使学生能够深入理解热传递过程的基本概念和规律, 为后续专业课的学习、也为更高层次的热科学理论学习或研究工作奠定扎实的传热学基础; 通过传热学的理论学习和实验研究整个教学过程, 使学生能熟练掌握热量传递的基本规律与分析原理, 解决工程实际问题的能力, 培养学生分析问题、概括问题的能力; 课程内容主要包括: 导热基本定律及稳态导热、非稳态导热、对流换热、凝结与沸腾换热、热辐射基本定律及物体辐射辐射特性、辐射换热的计算、传热过程分析与换热器计算等。

Course description: This is a basic course for majors of thermal and dynamic engineering and mechanical engineering, aiming at the students' mastery of the basic concepts and theories of heat transfer, thus laying a solid foundation for their study of follow-up courses and further research. Through the entire teaching process of theoretical and experimental study about Heat Transfer, the students should master the basic law and analysis of heart transfer, and get the preliminary ability to apply the knowledge to solve the engineering problems. The main contents of this course are as follows: basic law and steady-state thermal conductivity, unsteady-state thermal conductivity, convectional heat transfer, boiling and condensation heat transfer, basic law of thermal radiation, the analysis of heat transfer and calculation about Heat Exchanger, and so on.

编 码: EP05008	Code:EP05008
课程名称: 能源与动力设备	Course Title:Energy and Power Equipment
课程类别: 专业核心	Course category:Required Core Course
学 分: 3	Credit(s):3
开课单位: 机械与运载工程 学院	Offering College/School:College of Mechanical & Vehicle Engineering

课程描述: 本课程是能源与动力工程专业的专业核心课,是学习专业后续课程的重要基础,是学生接触专业的启蒙课程。本课程以机械原理、热力学、传热学和流体力学为前导课程,为内燃机原理、热工测试技术、热动力设备排放污染及控制等方面课程学习提供必要的热工基础知识。

本课程主要包括热力发动机为主的内燃机和外燃机的基本结构和工作原理等学习内容,学生需了解国内外发动机中的新结构和新技术,理解发动机各机构和系统的工作原理,掌握发动机各组成部分的工作原理、基本结构和连接关系,并且能够对比分析不同发动机在结构和功能上的优缺点。通过学习本课程,学生学会发动机的基本结构组成和工作原理,获得发动机结构的认知能力、结构拆装的实践动手能力、空间想象和空间思维能力、设计能力和创新能力,养成认真负责和严谨细致的工程技术人员应具备的工作态度和工程素养以及团队合作和口头表达能力。

Course description: This is a core course, focused on fundamental knowledge and skills essential for academic and professional development in energy and power engineering. Mechanical Principles, Thermal Dynamics, Heat Transfer, and Fluid Dynamics are its header courses. It serves for the follow-up courses such as Internal Combustion Engine Fundamentals, Thermal Engineering Testing Technology, and Emission and Control of on Thermal Power Equipment, etc.

This course covers the basic structure of heat engine, including internal combustion engine and external combustion engine,as well as their work principles. The students need to know the new structure and technology in engine development at home and abroad,and to understand how components and systems of engine are connected and worked. Through the course, students learn the basic structure and working principle of engine, get engine structural disassembly practical ability, spatial imagination and spatial thinking skills, design capabilities and ability to innovate, develop a serious and responsible and rigorous and meticulous attitude which engineering and technical personnel should have. Written, graphical, teamwork and oral communications are also emphasized.

编 码: EP05009	Code:EP05009
课程名称: 动力机械制造工艺学	Course Title:Power Machinery Manufacturing Technology
	Course category:Required Core Course
课程类别: 专业核心	Credit(s):3
学 分: 3	Offering College/School:College of Mechanical & Vehicle Engineering
开课单位: 机械与运载工程学院	

课程描述: 动力机械制造工艺学是能源与动力工程专业的一门主要专业基础课。该门课程通过课堂讲授,并配合金工实习、生产实习、课程设计等环节的教学,使学生比较全面地了解热能与动力机械零件和机器的制造工艺有关的基本理论和知识(公差标准和尺寸链确定、机械加工质量控制、典型零件与典型特征的加工方法及手段、机床夹具设计与开发、零件制造工艺规程编制等),同时比较熟练地掌握有关的工艺方法(铸造、锻造、焊接、机械加工等)分析解决热能与动力机械零件及机器生产中一般工艺技术问题的能力。

Course description: The Thermal Energy and Power Machinery Manufacturing Technology is a major professional basic course for the Thermal Energy and Power Engineering Major of. This course through lectures, and cooperate with some supplementary means such as the metalworking practice, production practice, curriculum design , Etc., students comprehensive understanding of thermal energy and power machinery parts and machine manufacturing process related basic theory and knowledge, that include tolerance standard and dimension chain sure, mechanical processing quality control, a typical part and the typical features of processing methods and means, machine tool jig design and development, parts manufacturing process planning establishment, etc., at the same time, students can mastered the process methods , for example, casting, forging, welding, machining, etc., and the abilities of analysis and solve the general technology question in thermal energy and power machinery components and complete machine design and production process.

编 码: EP05010	Code:EP05010
课程名称: 燃烧学	Course Title:Combustion Theory
课程类别: 专业核心	Course category:Required Core Course
学 分: 3	Credit(s):3
开课单位: 机械与运载工程 学院	Offering College/School:College of Mechanical & Vehicle Engineering

课程描述: 本课程是能源与动力工程专业的专业核心课,是学习专业后续课程的重要基础,是学生接触专业的启蒙课程。本课程以热力学、传热学和流体力学为前导课程,为内燃机学、热工测试技术、热动力设备排放污染及控制等方面课程学习提供必要的热工基础知识。

本课程主要包括燃料概论、工程燃烧计算、燃烧理论基础、气体燃料的燃烧、液体燃料的燃烧、固体燃料的燃烧、热机燃烧技术等内容,学生需了解与燃料燃烧有关的基本概念和基本理论,理解固、液和气体燃料燃烧技术和控制燃烧过程中污染物的生成及排放的基本原理和方法,掌握燃烧的基本计算方法,并能灵活运用这些方法进行工程燃烧设备的燃烧基本过程计算。本课程以课堂教学为主、学生自学、讨论和实践相结合的模式,通过学习本课程,使学生在掌握扎实的基础理论知识的同时,能够获得工程应用背景知识,进而培养学生学以致用、理论联系实际的能力和素养。

Course description: This is a core course, focused on fundamental knowledge and skills essential for academic and professional development in thermal energy and power engineering. Thermal Dynamics, Heat Transfer, and Fluid Dynamics are its header courses. It serves for the follow-up courses such as Internal Combustion Engine Fundamentals, Thermal Engineering Testing Technology, and Emission and Control of on Thermal Power Equipment, etc.

The course covers fuel, combustion calculation in engineering, combustion fundamental, combustion for gas fuels, combustion for liquid fuels, combustion for solid fuels, and combustion for internal combustion engine. The students need to know the basic concepts and theories related to fuel combustion, and to understand the combustion technology for solid, liquid and gas fuels, and the fundamentals and methods of the pollutants produced and control during combustion. Moreover, the fundamental calculation methods of combustion need to be mastered and used with great flexibility to calculate the basic combustion process for engineering equipments. The teaching modes are that class teaching is used as a main method, combined with the student teaching themselves, discussion, and practice as the assistant methods, so that the students can master the knowledge of the basic theory and the engineering application background. In addition, this course also develops the students' ability and accomplishment to make their study serve the practical purpose.

编 码: EP05011	Code: EP05011
课程名称: 热工测试技术	Course Title: Thermal Energy and Power Engineering Testing Technology
课程类别: 专业核心	Course category: Required Core Course
学 分: 3	Credit(s): 3
开课单位: 机械与运载工程学院	Offering College/School: College of Mechanical & Vehicle Engineering

课程描述: 本课程是能源与动力工程专业本科生的专业核心课。以流体力学、传热学、燃烧学等基础课程为前导课程,为后续内燃机学、能源与动力设备等课程提供知识储备。本课程主要包括测量误差分析与处理、温度、压力、流速、成分测量等内容,学生需要通过本课程学习,掌握热能和动力工程领域主要参数的测量方法、测试系统和仪器的工作原理、测量误差分析和数据处理等;了解该领域新的测试技术和方法;加强测试系统使用、校验、数据处理等基本技能,为从事该领域的试验研究工作打下基础。

Course description: This course is a key course for the undergraduates whose majors are thermal energy and power engineering. Before taking this course, the undergraduates should have learn some basic courses, such as the Fluid Dynamics, Heat Transfer, Combustion Fundamentals and etc. After learning this course, the undergraduates should be able to approach to the some senior courses, such as Internal Combustion Engine, Equipment for Thermal Energy, Power Engineering and etc. The main content of this course includes the principles of the measurement methods, working principles of testing systems and equipment, measurement error analysis and data processing, new testing technologies and methods in the thermal energy and power engineering field, basic knowledge about sensor calibration, data processing and so on. Based on this course a solid foundation will be laid for the undergraduates who devote to work this field in the future.

编 码: EP05012	Code:EP05012
课程名称: 内燃机学	Course Title:Principles of Internal Combustion Engine
课程类别: 专业核心	Course category:Required Core Course
学 分: 4	Credit(s):4
开课单位: 机械与运载工程 学院	Offering College/School:College of Mechanical & Vehicle Engineering

课程描述: 本课程是能源与动力工程专业的专业必修课。通过学习, 使学生在掌握内燃机专业基础课的基础上, 了解内燃机工作过程的相关理论知识和内燃机整机及主要零部件特点和设计的原则与方法、较熟练地掌握内燃机理论循环知识、了解影响发动机性能的主要因素、掌握发动机实际工作过程的特点, 进一步了解提高发动机性能的有效途径。熟悉并掌握发动机的有关特性。并通过发动机台架实验, 了解发动机性能指标变化的规律和掌握常规的发动机台架实验方法。为进一步从事内燃机的设计、开发和研究打下必要的基础。

Course description: This course is for thermal energy and power engineering specialized required course. Through the study, students to master the working process in internal combustion engine theory and design principles and methods, proficient in internal combustion engine cycle knowledge, understand the main factors affecting the performance of the engine; grasp the characteristics of actual engine working process, to further understand the effective ways to improve the performance of the engine. Familiar with and master the relevant characteristics of the engine. And through the engine bench test, to understand the change of the engine performance index law and master the conventional engine bench test methods. Based on the design, further engaged in internal combustion engine development and lay the necessary.

编 码: ES04003	Code:ES04003
课程名称: 工程力学	Course Title:Engineering Mechanics
课程类别: 学类核心	Course category:Major Survey Course
学 分: 2	Credit(s):2
开课单位: 机械与运载工程 学院	Offering College/School:College of Mechanical & Vehicle Engineering

课程描述: 本课程是一门为工科学生开设的专业基础课。通过该课程的学习, 学生能够进行刚体的静力学分析, 能够掌握固体力学的基本概念以及杆件和梁的强度、刚度的计算, 为学生学习相关的后续专业课程打下必不可少的基础。通过工程力学的教学过程逐步培养学生分析、概括以及解决问题的能力。主要内容为刚体静力学、杆件的四个基本变形、应力状态和强度理论。

Course description: Engineering Mechanics is a required basic specialized course for students of engineering. Through this course, students are required to master the basic concepts of solid mechanics and the calculating skills on the strength, stiffness of bars and beams. This course will supply the fundamental theories for the follow-up specialized courses, and develop the ability of students to analyze and resolve problems. The main contents of the course include static mechanics of rigid body, four basic deformations, combined deformations, the stress state, strength theories.

编 码: ES04004

Code:ES04004

课程名称: 流体力学

Course Title:Hydromechanics

课程类别: 学类核心

Course category:Major Survey Course

学 分: 2

Credit(s):2

开课单位: 机械与运载工程
学院

Offering College/School:College of Mechanical & Vehicle
Engineering

课程描述: 内容暂缺

Course description: There is no contents at present.



编 码: ME04017	Code:ME04017
课程名称: 机械工程图学(1)	Course Title:Mechanical Engineering Graphics (1)
课程类别: 学类核心	Course category:Major Survey Course
学 分: 3	Credit(s):3
开课单位: 机械与运载工程 学院	Offering College/School:College of Mechanical & Vehicle Engineering

课程描述: 机械工程制图是一门研究用投影法绘制和阅读工程图样, 以及解决空间几何问题的理论和方法的学科。是高等工科院校中一门既有理论又有实践的重要专业技术基础课。本课程是机械专业的一门必修的专业技术基础课。包括三部分投影理论、机械制图基础、计算机绘图。其目的是培养学生具有绘图、读图和空间想象能力, 是学习后续课程、完成课程设计、毕业设计不可缺少的一门重要课程。

Course description: This course is a subject of studying on drawing with projection, reading engineering graphics, and theories and methods of solving spatial geometrical problems, it is an important major technical basic course with both theory and experiment in colleges of engineering, the objective is developing students' abilities in drawing, reading graphics and spatial imagination. It includes Descriptive Geometry, Mechanical Drafting and Computer Drawing.

编 码: ME04018	Code:ME04018
课程名称: 机械工程图学(2)	Course Title:Mechanical Engineering Graphics (2)
课程类别: 学类核心	Course category:Major Survey Course
学 分: 3	Credit(s):3
开课单位: 机械与运载工程 学院	Offering College/School:College of Mechanical & Vehicle Engineering

课程描述: 机械工程制图是一门研究用投影法绘制和阅读工程图样, 以及解决空间几何问题的理论和方法的学科。是高等工科院校中一门既有理论又有实践的重要专业技术基础课。本课程是机械专业的一门必修的专业技术基础课。包括三部分投影理论、机械制图基础、计算机绘图。其目的是培养学生具有绘图、读图和空间想象能力, 是学习后续课程、完成课程设计、毕业设计不可缺少的一门重要课程。

Course description: This course is a subject of studying on drawing with projection, reading engineering graphics, and theories and methods of solving spatial geometrical problems, it is an important major technical basic course with both theory and experiment in colleges of engineering, the objective is developing students' abilities in drawing, reading graphics and spatial imagination. It includes Descriptive Geometry, Mechanical Drafting and Computer Drawing.

编 码: ME04019	Code: ME04019
课程名称: 工程材料	Course Title: Engineering Materials
课程类别: 学类核心	Course category: Major Survey Course
学 分: 2	Credit(s): 2
开课单位: 机械与运载工程 学院	Offering College/School: College of Mechanical & Vehicle Engineering

课程描述: 本课程是机械类各专业的学类核心课程,以工程制图和材料力学为前导课程,为机械制造装备设计、机械制造技术等课程学习提供基础。

本课程主要包括材料的性能和结构、金属的凝固和塑性变形、钢的热处理和工业用钢等内容,学生需了解高分子、陶瓷和复合材料的分类、特点和用途,理解金属材料相关的性能、结构、凝固和变形等基本知识,掌握金属热处理的基本理论,并能灵活运用杠杆定律等。通过学习本课程,学生学会工程材料的基本理论知识,掌握材料的化学成分、组织结构、加工工艺和性能之间的关系,锻炼和提升分析解决机械工程实际问题的能力。

Course description: This course is a core professional course for the mechanical Engineering. This course should be arranged after the course of materials mechanics and engineering drawing. This course can also lay a solid foundation for the students' study of follow-up courses such as mechanical manufacturing equipment and manufacturing technology.

This course mainly includes the properties and structure of materials, the solidification and plastic deformation of metals, the heat treatment and application of steel. The goal of this course is to help students to know the classification, characteristics and usage of the polymers, ceramics and composites, understand the basic knowledge of the metal material performance, structure, solidification and deformation, grasp the basic theories of metal heat treatment and flexibly apply the lever law. Through the study of this course, students should master the basic theoretical knowledge of engineering materials and the relationship between the chemical composition, organization structure, process and performance of the materials, exercise and enhance the analysis ability to solve practical problems of mechanical engineering.

编 码: ME04020	Code:ME04020
课程名称: 理论力学	Course Title:Theoretical Mechanics
课程类别: 学类核心	Course category:Major Survey Course
学 分: 4	Credit(s):4
开课单位: 机械与运载工程 学院	Offering College/School:College of Mechanical & Vehicle Engineering

课程描述: 本课程是一门为机械工程、车辆、工程力学等专业学生开设的力学基础课程，以高等高等数学、普通物理学为先导课程。为材料力学、机械设计等后续课程学习提供理论基础。本课程主要包括静力学、运动学和动力学以及分析力学基础知识。通过本课程学习，使学生能掌握静力学、运动学及动力学的基本概念、基本理论及分析方法，为学生学习后续课程如材料力学、结构力学、弹性力学等打下基础。通过理论力学的教学，逐渐培养学生将复杂的工程实际问题抽象简化为便于计算的力学模型，并进行数学求解的能力。培养学生基于基本概念和公理进行逻辑推理的能力、独立思考以及创新的能力。

Course description: This course is one of the basic Mechanics courses for students who major in Mechanical Engineering, Automobile, Engineering mechanics. Led by Advanced Mathematics and Physics, this course lays the foundation for the follow-up professional courses, such as Mechanics of Materials and Fundamentals of Mechanical Design. The main contents include theories of statics, kinematics and dynamics. Learning through this course, enable students to master the basic concepts, theories and analytical methods of statics, kinematics and dynamics; Lay foundations for the subsequent courses such as material mechanics, structural mechanics. Through theoretical mechanics teaching, students will gradually develop abilities of simplifying complex engineering problems into simply mechanical model for the computing purpose, and that of solving mathematical problems as well. To develop the students' abilities of logical reasoning based on the basic concepts and axioms, and that of independent thinking and innovation.

编 码: ME04020	Code:ME04020
课程名称: 理论力学	Course Title:Theoretical Mechanics
课程类别: 学门核心	Course category:Introductory Major Course
学 分: 4	Credit(s):4
开课单位: 机械与运载工程 学院	Offering College/School:College of Mechanical & Vehicle Engineering

课程描述: 本课程是一门为数学与应用数学、信息与计算科学等非力学专业学生开设的力学基础课。1) 使学生能掌握静力学、运动学及动力学的基本概念、基本理论及分析方法, 为学生学习后续课程打下基础。2) 通过理论力学的教学, 逐渐培养学生将复杂的工程实际问题抽象简化为便于计算的力学模型, 并进行数学求解的能力。3) 培养学生基于基本概念和公理进行逻辑推理的能力、独立思考以及创新的能力。

Course description: This course is a basic Mechanics course for mechanical, civil, materials and other non-mechanical majors. 1) Enable students to master the basic concepts, theories and analytical methods of statics, kinematics and dynamics; Lay foundations for the subsequent courses such as material mechanics, structural mechanics. 2) Through theoretical mechanics teaching, students will gradually develop abilities of simplifying complex engineering problems into simply mechanical model for the computing purpose, and that of solving mathematical problems as well. 3) To develop the students' abilities of logical reasoning based on the basic concepts and axioms, and that of independent thinking and innovation

编 码: ME04021	Code:ME04021
课程名称: 材料力学	Course Title:Material Mechanics
课程类别: 学类核心	Course category:Major Survey Course
学 分: 4	Credit(s):4
开课单位: 机械与运载工程 学院	Offering College/School:College of Mechanical & Vehicle Engineering

课程描述: 本课程是一门为工程力学、机械、材料、土木等理工科专业开设的专业基础必修课。通过该课程的学习,学生能够掌握固体力学的基本概念及一维问题——杆件的强度、刚度和稳定性的计算,为学生学习相关的后续专业课程,如弹性力学、塑性力学、有限元和实验应力分析等打下必不可少的基础。通过材料力学的教学过程逐步培养学生分析、概括以及解决问题的能力。主要内容为杆件的四个基本变形、组合变形、压杆稳定、应力应变分析以及强度理论的基本分析方法。

Course description: Mechanics of Materials is a required basic specialized course for engineering mechanics, machinery, materials and civil engineering specialties. Through this course, students are required to master the calculating skills on the strength, stiffness and the stability of bars and the fundamental theories for the follow-up specialized courses such as Elasticity, Plasticity, Finite Element Method and Experimental Stress Analysis, and to develop the ability to analyze and resolve problems. The main contents of the course include four basic deformations, combined deformations, the stability for compression bars, the stress and strain analysis, strength theories, basic analysis methods for dynamic loads and fatigue problems.

编 码: ME04022	Code:ME04022
课程名称: 流体力学	Course Title:Fluid Mechanics
课程类别: 学类核心	Course category:Major Survey Course
学 分: 2	Credit(s):2
开课单位: 机械与运载工程 学院	Offering College/School:College of Mechanical & Vehicle Engineering

课程描述: 本课程是机自专业核心课程。通过该课程的教学使学生能够理解并掌握工程流体力学中的基本概念及基本定律, 为学生进行机械、航空及海洋工程方面的研究及设计工作奠定基础。本课程强调量纲分析和量级分析方法在工程中的应用。通过课程的学习, 将培养学生对复杂工程问题进行简化, 建立并求解数学模型的能力。课程的主要内容包括: 流体运动的基本方程、不可压和可压无粘流动、量纲分析及不可压无粘流动。

Course description: This is a basic course for majors of mechanical engineering, aiming at students' physical concepts and basic principles commonly used to analyze engineering related to fluid mechanics, thus laying a solid foundation for their research and design in mechanical, aerospace and ocean engineering. The applications of the dimensional and order analysis method in engineering are emphasized in this course. The study of this course develops the students' ability to simplify the complex problems, present and solve the mathematical model of related engineering problems. The main contents of this course are the basic equations of fluid mechanics, incompressible and compressible in-viscid flow, dimensional analysis, and incompressible viscid flow.

编 码: ME04023	Code: ME04023
课程名称: 热工学基础	Course Title: Fundamentals of Thermal Engineering Fundamentals
课程类别: 学类核心	Course category: Major Survey Course
学 分: 3	Credit(s): 3
开课单位: 机械与运载工程 学院	Offering College/School: College of Mechanical & Vehicle Engineering

课程描述: 热工学基础是机械工程类专业重要的核心课程。本课程研究热能有效利用, 热能与其它形式能量之间的转换规律, 热能的传递规律以及热能的有效利用方法。本课程不仅为机械工程大类学生学习有关后续专业课程提供必要的理论知识基础理论知识, 也为是今后从事相关专业技术领域的工程工作和科学研究工作提供重要的理论基础必备知识。本课程的设置目的是使学生通过本课程学习, 使学生能掌握热工学的基本规律、研究手段和工程问题解决方法。课程具体主要内容包括: 绪论、热力学基本概念、工质的热力性质、热力学第一定律、工质的基本热力过程、热力学第二定律、以及纯物质的热力学一般关系式、稳态过程导热、对流换热、和热辐射换热的基础知识与一般计算方法等。

Course description: Thermal Engineering Fundamentals is an important core course in mechanical engineering. This course studies the law of energy conversion between thermal energy and other form of energy, the law of heat transfer, and the method for heat recovery. The course provides not only the necessary basic theoretical knowledge for mechanical engineering students to learn about the professional courses, but also an important theoretical basis for students engaged in related professional and technical job and scientific research. By studying this course, students should grasp the fundamental law, research means and the solution method for the problems of thermal engineering. The course mainly includes the basic concept of thermodynamics, the thermodynamic property of working fluid, the first law of thermodynamics, the basic thermodynamic process of working fluid, the second law of thermodynamics, the general thermodynamics relation of pure substance, the basic knowledge and general calculation method of heat conduction, convection and radiation, and so on.

编 码: ME04024

Code:ME04024

课程名称: 机械原理

Course Title:Mechanical Principles

课程类别: 学类核心

Course category:Major Survey Course

学 分: 4

Credit(s):4

开课单位: 机械与运载工程
学院

Offering College/School:College of Mechanical & Vehicle
Engineering

课程描述: 本课程是机械设计制造及其自动化、车辆工程专业的专业核心课程,以机械工程图学、理论力学为前导课程,为专业课程学习提供机构学和机械力学方面的基础。

Course description: This course is a core curriculum for major of mechanical design manufacturing and automation, vehicle engineering and the leading courses of which are mechanical engineering drawings, theoretical mechanics, it provide mechanism and mechanical aspects of the foundation for professional courses learning.



编 码: ME04025	Code:ME04025
课程名称: 机械设计	Course Title:Mechanical Design
课程类别: 学类核心	Course category:Major Survey Course
学 分: 4	Credit(s):4
开课单位: 机械与运载工程 学院	Offering College/School:College of Mechanical & Vehicle Engineering

课程描述: 本课程主要包括机构的结构分析、机构的运动分析和力分析及常用机构设计等内容。学生需了解常用机构的工作特性,理解机构的组成原理,掌握常用机构的设计方法和力学分析方法,并能灵活运用课程知识设计简单的机械运动系统。通过学习本课程,学生学会机械运动和力学的基本分析和设计方法,获得应用相关科学原理并采用合适科学方法针对工程问题进行研究的能力,锻炼和提升就工程问题与业界同行和社会公众进行有效沟通和交流能力。

Course description: This course mainly includes the structural analysis, kinematic analysis and force analysis of mechanism, common mechanism design. Students are required to understand the composition and the working principle of the mechanism, to grasp the method of mechanism design and analysis and to design simple mechanical motion system by flexible using the curriculum knowledge. Through this course, students learn the basic analysis and design methods of mechanical kinematics and dynamics, to obtain ability the application of scientific principles and methods to study the engineering problems, exercise and promotion effective communication skills with industry peers and the public on engineering issues.

编 码: ME04027	Code:ME04027
课程名称: 控制工程基础	Course Title:The Basis of Control Engineering
课程类别: 学类核心	Course category:Major Survey Course
学 分: 2	Credit(s):2
开课单位: 机械与运载工程 学院	Offering College/School:College of Mechanical & Vehicle Engineering

课程描述: 本课程是机械设计制造及自动化、车辆工程、热能专业的必修课，是一门比较抽象的技术基础课。通过该课程的教学使学生能够掌握古典控制理论的基本概念、基本理论和基本分析方法，主要掌握常见系统数学模型的建立、一阶系统和二阶系统的时域分析及频域分析、系统稳定性的判断等内容，了解系统辨识及系统校正的基本方法，为学生学习相关后续专业课程，如计算机控制技术、机电传动与控制等打下必不可少的基础，并逐渐培养学生分析问题、解决问题的能力，尤其对单输入单输出系统的分析及设计方法能深入理解和灵活运用。

Course description: This course is the required course for mechanical design, manufacturing and automation, vehicle engineering and power engineering. It's an abstract technical basic course. Through the course of learning to enable students to master the basic concepts, basic theory of classical control theory and the basic analysis method. The main master including: Building common mathematical model of the system,time domain analysis and frequency domain analysis of a second order and two order system and the system stability judgment etc. To understand the basic calibration methods of system identification and system correct. To lay the foundation of studying the relevant follow-up professional courses for students, such as the basis of computer control technology, electromechanical transmission and control. Gradually develop student's ability to analyze and solve the problem. In particular, analysis and design method for single input single output system can understand and use flexibly.

编 码: ME04031	Code: ME04031
课程名称: 机械设计基础	Course Title: Fundamentals of Mechanical Design
课程类别: 学类核心	Course category: Major Survey Course
学 分: 4	Credit(s): 4
开课单位: 机械与运载工程 学院	Offering College/School: College of Mechanical & Vehicle Engineering

课程描述: 该课程是工业工程和工程力学两个专业的学类核心课程，以机械工程图学、工程材料、理论力学、材料力学、互换性与测量技术基础等为前导课程，为后续专业课程学习打下基础。该课程主要包括机构学原理、机械零部件和系统设计等内容，学生需要了解一般机械装置的常见机构分析、通用零部件设计等共性问题，理解常用机构及通用零部件的工作原理及特点，掌握其设计原理及计算方法，并能灵活运用相关标准、规范、手册、图册等进行零部件和简单机械系统的设计。通过学习本课程，学生学会分析机械装置，获得机械设计的基本知识，锻炼和提升工程分析与设计、自主学习与创新、工程表达与交流等多方面能力。

Course description: This course is one of the core courses in General Category for students who major in Engineering Mechanics and Industrial Engineering. Led by Mechanical Engineering Graphics, Engineering Materials, Theoretical Mechanics, Mechanics of Materials, Fundamentals of Interchangeability and Measurement Technology, this course lays the foundation for the follow-up professional courses. The main contents include theories of mechanisms and design of elements and mechanical system. Students need to know the common knowledge about general machinery, such as analysis of common mechanisms and design of universal elements. Also, they should understand the operating principles of common mechanisms and general parts. By mastering the design principles and calculating methods, they can utilize the relevant standards, criteria, manuals and atlas to design machine elements and simple mechanical systems. Through this course, students can acquire the basic knowledge of mechanical design. The course can foster and improve the students' abilities in engineering analysis and design, independent learning and innovation, engineering expression and communication.

编 码: ME04032	Code:ME04032
课程名称: 流体力学	Course Title:Fluid Mechanics
课程类别: 学类核心	Course category:Major Survey Course
学 分: 4	Credit(s):4
开课单位: 机械与运载工程 学院	Offering College/School:College of Mechanical & Vehicle Engineering

课程描述: 本课程是工程力学专业的学类核心课程,以高等数学、理论力学、材料力学为前导课程,着重培养学生分析解决实际工程中流体力学问题的能力。本课程主要包括流体的平衡、流体运动的基本方程、流体的积分关系式及其应用、流体的涡旋运动、无粘不可压缩流体的无旋流动、粘性不可压缩流体的无旋流动、量纲分析与相似理论等,强调应用这些基本理论及定律分析与流体力学相关的工程问题。学生需了解流体力学的发展现状和趋势,理解流体力学中的基本概念、基本理论及基本定律,掌握流体力学的实验、分析与数值计算的基本技能与基本方法,获得分析和解决与流体力学相关的工程问题的能力。

Course description: This is a basic course for majors of engineering mechanics. Advanced mathematics, theoretical mechanics,mechanics of materials are the prerequisites, it is focused to cultivate ability for students to solve fluid mechanics problems in engineering. The main contents of this course include fluid statics, the basic equations of fluid motion, the integral equations and application, the motion of vortex, in-compressible in-viscid flow and in-compressible viscid flow, dimensional analysis and similitude. It is emphasized to solve fluid mechanics engineering problems with the basic theories and laws. Students should know development status and trend of fluid mechanics, understand the basic concept, theories and laws, master the basic technique and method of experiment, analysis and numerical calculation, obtain the ability in analyzing and solving engineering problems related to fluid mechanics.

编 码: ME05002	Code:ME05002
课程名称: 汽车理论	Course Title:Vehicle Theory
课程类别: 专业核心	Course category:Required Core Course
学 分: 4	Credit(s):4
开课单位: 机械与运载工程 学院	Offering College/School:College of Mechanical & Vehicle Engineering

课程描述: 本课程是车辆工程专业的专业核心课程。以汽车构造、发动机原理和汽车振动学为先导课程,为后续汽车设计、汽车系统动力学等课程的学习提供理论基础。

本课程主要包括汽车的动力性、燃油经济性、动力传动装置参数选择、制动性、操纵稳定性、平顺性和通过性等内容。学生需了解评价汽车性能的指标,理解汽车六大性能的影响因素,掌握汽车性能的评价方法,并能灵活运用于汽车设计开发和试验。通过该课程的学习,学生学会汽车性能影响因素的分析方法,获得汽车设计的基本理论,锻炼和提升学生分析问题、解决问题的能力。

Course description: This is a core course for students majoring in vehilce engineering.It is the guideline course of Theoretical Mechanics,Vehicle Structure、 Engine Theory and Vehicle Vibration. This course lays the foundation for Vehicle Design、 Vheicle System Dynamics.

The main contents include power performance, economic performance, the choice of power train parameters, brake performance, handling stability, ride performance. T Students mustknow vehicle performance evaluation index, understand its effort factors of six performance, master how to evaluate the vehicile performacne, use it to design vehicle and do experiments. Through this course of study, students learn to analyze its effect factors for vehicle performance, obtain the basic theory of vehicle design. The course will train students' capability of analyzing and solving engineering problems, as well as the innovative ability.

编 码: ME05003	Code: ME05003
课程名称: 汽车设计	Course Title: Vehicle Design
课程类别: 专业核心	Course category: Required Core Course
学 分: 3	Credit(s): 3
开课单位: 机械与运载工程 学院	Offering College/School: College of Mechanical & Vehicle Engineering

课程描述: 本课程是车辆工程专业的专业核心课,以工程图学、机械原理、机械设计、理论力学、材料力学、汽车构造、汽车理论等为前导课程,为毕业设计以及毕业后进入汽车企业参与设计工作提供知识和理论基础。

本课程主要包括:汽车总体设计、离合器设计、机械变速器设计、万向传动轴设计、驱动桥设计、悬架设计、转向系设计以及制动系设计等内容,学生需了解机械理论、机械设计的基本知识,理解汽车整车及其系统零部件设计的基本理念,掌握汽车整车及零部件系统的设计方法,并能灵活运用计算机辅助设计以及计算机辅助分析等相关软件进行设计和分析等。通过本课程的学习,学生学会汽车设计方法,获得设计理论、设计法规与标准等相关知识,锻炼和提升综合工程能力与创新能力等。

Course description: This is a core course for students majoring in vehicle engineering. Students should take Engineering Graphics, Mechanical Theory, Mechanical Design, Theoretical Mechanics, Material Mechanics, Vehicle construction and Vehicle Theory as leading courses. This course provides students a basic knowledge for graduation project and work after graduation.

This course mainly includes vehicle overall design, clutch design, universal transmission shaft design, mechanical gear box design, driving axle design, suspension system design, steering system design and brake system design, etc. Students should have the basic knowledges of mechanical design and theories of mechanics, understand the design method of overall vehicle and main assemblies, and use CAD, CAE tools to conduct design and analysis. Through this course, students can learn the vehicle design knowledge, design regulations and criteria, cultivate their ability to solve comprehensive engineering problems, etc.

编 码: ME05033	Code: ME05033
课程名称: 机械制造技术	Course Title: Mechanical Manufacturing Technology
课程类别: 专业核心	Course category: Required Core Course
学 分: 4	Credit(s): 4
开课单位: 机械与运载工程 学院	Offering College/School: College of Mechanical & Vehicle Engineering

课程描述: 本课程是机械设计制造及其自动化专业的专业核心课程,以机械工程图学、工程材料、机械设计等为前导课程,为后续专业课程如机械制造装备、特种加工等的学习打下基础。本课程主要包括材料成型工艺基础、金属切削过程的基础知识与基本规律、机械加工工艺规程的制定、机床夹具设计、机械加工精度与表面质量、机械装配工艺等内容,学生需要了解常见机械加工方法(包涵热加工和冷加工),理解其加工原理、特点及应用范围,掌握机械加工与装配工艺规程制定与机床夹具设计的一般方法,并能正确选择机械加工及装配方法、灵活运用相关手册/图册等制定机械加工与装配工艺规程、设计或正确选用工艺装备、分析加工质量。通过学习本课程,学生获得机械制造相关的基本理论、基本知识和基本技能,锻炼和提升分析解决复杂机械工程实际问题的能力、运用相关工具与资料进行系统/部件/工艺流程设计的能力、自主学习与创新等多方面的能力。

Course description: This course is one of the core courses in Specialized Education for students who major in Mechanical Design & Manufacture and Automation. Led by Mechanical Engineering Graphics, Engineering Materials, Engineering Mechanics, this course lays the foundation for the follow-up professional courses such as Mechanical Manufacturing Equipments, Non-traditional Machining Technology, etc. The main contents include the foundation of material shaping, basic knowledge & laws in metal machining, programing of process planning, designing of machine tool fixture, machining accuracy & surface integrity and mechanical assembling. Students need to know the common machining methods(including hot working and cold working), understand their operating principles, characteristics and applications, grasp the common methods both for programing the machining and assembling plan and for designing the machine tool fixtures, choose the correct machining and assembling methods, utilize flexibly the relevant manuals and atlas to program the machining and assembling plan as well as to design or to select properly the machining tools and equipments, and analyze the machining accuracy & surface integrity. Through this course, students can acquire the basic theories,the basic knowledge and the basic skills in mechanical manufacturing, foster and improve the students' abilities such as analyzing and solving complex practical engineering problems, utilizing the relevant tools and data to design the machining systems, parts and processing plans, and independent learning and independent innovation.

编 码: ME05034	Code: ME05034
课程名称: 机械制造装备	Course Title: Mechanical Manufacturing Equipments
课程类别: 专业核心	Course category: Required Core Course
学 分: 3	Credit(s): 3
开课单位: 机械与运载工程 学院	Offering College/School: College of Mechanical & Vehicle Engineering

课程描述: 本课程是机械设计制造及其自动化专业的专业核心课程,以机械原理、机械设计、机械制造技术为前导课程,为先进制造技术、特种加工、毕业设计等方面课程学习提供保障。

本课程主要包括机械制造装备设计方法、金属切削机床设计、工业机器人设计和物流装备设计等内容,学生需了解机械加工生产线,理解机械制造装备现代设计原理和方法,掌握机械制造装备典型部件设计,并能灵活运用所学方法完成某类型机械制造装备的总体方案设计和结构设计等。通过学习本课程,学生学会机械制造装备的开发,获得装备自主创新的技术基础,锻炼和提升解决工程实际问题的能力。

Course description: Mechanical Manufacturing Equipments is one of the required core courses for the Major in Mechanical Engineering & Automation. The course forms a connecting link between such preceding courses as Principles of Mechanism, Mechanical Design and Technology of Mechanical Manufacturing, and the following courses of Advanced Manufacturing Technology, Non-traditional Machining and Graduation Projects.

The main contents of the course include the design method for mechanical manufacturing equipments, metal cutting machine tools, industrial robot and logistics equipments. Teaching objectives will be paid attention to making sense of machining production line, understanding modern theory and method of the design, well knowing the design for typical parts, and applying what the students' learn to general and structural design for the certain equipments in the area of mechanical manufacturing. After learning of the course, the students can develop mechanical manufacturing equipments independently with the base ability of technological innovation and solve the engineering problem in the future.

编 码: ME05035	Code: ME05035
课程名称: 互换性与测量技术基础	Course Title: Foundamentals of Interchangeability and Measurement Technology
课程类别: 学类核心	Course category: Major Survey Course
学 分: 2	Credit(s): 2
开课单位: 机械与运载工程学院	Offering College/School: College of Mechanical & Vehicle Engineering

课程描述: 本课程是机械设计制造及其自动化、车辆工程等多个机械工程类专业本科生的一门核心课。它以机械工程图学、机械原理、机械设计等基础课程为前导课程,为后续的设计、制造与检测方面的课程学习及其课程设计、毕业设计等提供必需的基础知识。

本课程主要教学内容包括公差标准体系及其应用、精度设计原理与方法、误差计量检测与控制。学生需要了解互换性、标准化、公差、精度、误差等概念,理解精度设计原理与方法、误差计量原则与方法等,掌握公差规范及其标注、误差计量检测准则与评定控制方法,并能灵活运用到机械工程实践之中。以使学生获得精度设计与公差标注能力、计量检测与合格性评判能力、制造误差检测与分析能力等,以锻炼和提升学生的设计能力、质量检测与工艺分析能力等。

Course description: Foundation of Interchangeability and Measurement Technology is a core course for undergraduate who is majoring Mechanical Design manufacture and Automation or Vehicle Engineering in the mechanical engineering. This course should be studied after these basis course such as the Mechanical Engineering Graphics, Theory of Machines and Mechanisms, Mechanical Design, so that it could offer essential basic knowledge for the follow-up courses in design, or manufacturing, or detection, such as professional course design, or graduation thesis.

This course has its main teaching content include tolerance standard system and its application, precision design principle and method, error measurement or detection and evaluation and control. Every student need to know about interchangeability, standardization, tolerance, precision, error, and so on, everyone should understand the precision design principle and method, the error measurement principles and methods, and everyone should master the tolerance specification and tolerance marking, error measurement test criteria and evaluation control method, and they can be flexibly applied to mechanical engineering practice. So as to make everyone to obtain these ability of precision design and tolerance marking, error measurement detection and the qualification judgment, manufacturing error detection and analysis, and to exercise and improve every students' ability of design, quality inspection and process analysis.

编 码: ME05035	Code: ME05035
课程名称: 互换性与测量技术基础	Course Title: Foundamentals of Interchangeability and Measurement Technology
课程类别: 专业核心	Course category: Required Core Course
学 分: 2	Credit(s): 2
开课单位: 机械与运载工程学院	Offering College/School: College of Mechanical & Vehicle Engineering

课程描述: 本课程是机械设计制造及其自动化、车辆工程等多个机械工程类专业本科生的一门核心课。它以机械工程图学、机械原理、机械设计等基础课程为前导课程,为后续的设计、制造与检测方面的课程学习及其课程设计、毕业设计等提供必需的基础知识。

本课程主要教学内容包括公差标准体系及其应用、精度设计原理与方法、误差计量检测与控制。学生需要了解互换性、标准化、公差、精度、误差等概念,理解精度设计原理与方法、误差计量原则与方法等,掌握公差规范及其标注、误差计量检测准则与评定控制方法,并能灵活运用到机械工程实践之中。以使学生获得精度设计与公差标注能力、计量检测与合格性评判能力、制造误差检测与分析能力等,以锻炼和提升学生的设计能力、质量检测与工艺分析能力等。

Course description: Foundation of Interchangeability and Measurement Technology is a core course for undergraduate who is majoring Mechanical Design manufacture and Automation or Vehicle Engineering in the mechanical engineering. This course should be studied after these basis course such as the Mechanical Engineering Graphics, Theory of Machines and Mechanisms, Mechanical Design, so that it could offer essential basic knowledge for the follow-up courses in design, or manufacturing, or detection, such as professional course design, or graduation thesis. This course has its main teaching content include tolerance standard system and its application, precision design principle and method, error measurement or detection and evaluation and control. Every student need to know about interchangeability, standardization, tolerance, precision, error, and so on, everyone should understand the precision design principle and method, the error measurement principles and methods, and everyone should master the tolerance specification and tolerance marking, error measurement test criteria and evaluation control method, and they can be flexibly applied to mechanical engineering practice. So as to make everyone to obtain these ability of precision design and tolerance marking, error measurement detection and the qualification judgment, manufacturing error detection and analysis, and to exercise and improve every students' ability of design, quality inspection and process analysis.

编 码: ME05036	Code:ME05036
课程名称: 液压与气压传动	Course Title:Hydraulic and Pneumatic Transmission
课程类别: 专业核心	Course category:Required Core Course
学 分: 3	Credit(s):3
开课单位: 机械与运载工程 学院	Offering College/School:College of Mechanical & Vehicle Engineering

课程描述: 《液压与气压传动》是机械设计制造及其自动化、车辆工程等机械类专业的一门重要的专业核心课程。该课程要求学生掌握液压与气压传动元件的结构和工作原理, 掌握工业液压与气压传动系统回路的设计计算方法。课程的主要内容包括: 液压与气压传动流体力学基础、流体动力元件、流体控制元件、流体执行元件、基本回路、系统设计计算以及典型工业液压与气压传动系统举例。

Course description: Hydraulic and pneumatic transmission is a core and crucial course for majors of Mechanical Design, Manufacturing & Automation and Vehicle Engineering. It aims to enable students to master structure and principle of basic fluid power components, as well as approaches for industrial fluid power system design and calculation. Main contents of this course include fundamental fluid mechanics for hydraulic and pneumatic transmission, basic fluid components for power generation, control and actuation, basic circuits, fluid power system design and calculation, typical hydraulic and pneumatic transmission systems for industry applications.

编 码: ME05037	Code:ME05037
课程名称: 微机原理	Course Title:Microcomputer Principles
课程类别: 专业核心	Course category:Required Core Course
学 分: 2	Credit(s):2
开课单位: 机械与运载工程 学院	Offering College/School:College of Mechanical & Vehicle Engineering

课程描述: 本课程是机械制造及自动化专业的专心核心课程,以程序设计基础、电工技术、数字电路、电工电子学为前导课程,为课程设计与毕业设计等提供基础。

本课程主要包括 8051 系列单片微控制器的基本原理、硬件结构、工作方式、指令集等内容,学生需了解人机接口的设计方法,进行基本的微机接口设计,理解并行输入输出、定时计数器、串行通信、中断、AD,掌握单片微机存储器、输入输出接口扩展的基本原理和方法,并能灵活运用各个模块等。通过学习本课程,学生学会单片机系统的基本概念,获得单片机系统的设计方法,锻炼和提升单片机系统的设计能力,能够从事单片机应用方面的工作。本课程为其它课程奠定软硬件基础。

Course description: This is a major core course for mechanical engineering and automation students.The leading courses include program design basic,electrotechnics,digital circuit,electrical electronics. And the course provides basis for curriculum design and graduation design.

The content of the course is about 8051 single chip microcontroller series.The content includes basic principles,hardware constructions, operation modes, instruction sets.Students need to know about the design methods of human-machine interface and know how to design it. Students need to grasp the parallel input and output port, timer, SCl, interrupt, AD, grasp the basic principles and methods of expanding memory and input and output ports and apply all modules freely. After studying the course, students will learn basic concepts, design methods and have the ability to work in the field of microcomputer. The course provides the basis of software and hardware knowledge for the other courses.

编 码: ME05038	Code: ME05038
课程名称: 工程测试技术	Course Title: Engineering Measurement Technology
课程类别: 专业核心	Course category: Required Core Course
学 分: 2	Credit(s): 2
开课单位: 机械与运载工程 学院	Offering College/School: College of Mechanical & Vehicle Engineering

课程描述: 本课程是机械设计制造及其自动化专业的专业核心课程,以高等数学、工程数学、控制工程基础等为先修课程,为掌握或设计机械工程中的自动化监测、监控及智能化系统方面课程学习提供必要的基础。

本课程主要包括测试信号分类及其描述和处理方法、测试系统的基本组成及其动、静态特性的评价方法、常用传感器原理、分类及应用、信号调理分析与处理及机械工程领域常遇到的振动、噪声测量的基本知识等内容,学生需了解振动、噪声测量的基本方法,理解常用传感器原理、分类及应用,掌握动态测试系统的基本原理、组成及信号分析处理的基本知识,并能灵活运用所学知识,根据研究对象及所需测试的参数进行实验方案设计,合理选用传感器、测试仪器及装置。通过学习本课程,学生学会与机械工程相关的测试技术的基本概念、基本理论和应用技术,获得初步具备独立进行科学实验的能力,锻炼和提升对基本工程问题知识研究和分析处理的能力。

Course description: This course is the core course of Mechanical Design, Manufacture & Automation. It is based on the pre-course such as Advanced Mathematics, Engineering Mathematics and The Basis of Control Engineering and so on. It provides the necessary foundation for the study of the course of the automatic monitoring, monitoring and intelligent system in the master or design of mechanical engineering.

This course mainly includes test signal classification and description and processing method, testing system and the basic component of dynamic, static performance evaluation method, commonly used the principle, classification and application of sensor, signal analysis and processing and the field of mechanical engineering often meets the basic knowledge of vibration, noise measurement. Students need to know the basic methods of vibration and noise measurement, understand the principle, classification and application of sensors and master the dynamic testing system of basic principle, components and signal analysis and processing of the basic knowledge. Students can flexibly use the knowledge, according to the research object and the test parameters of the test program design, reasonable selection of sensors, testing instruments and equipment. Through the study of this course, we can know about the basic concept, basic theory and application technology of engineering measurement technology, obtain the ability of independent scientific experiments, exercise and improve the ability to study and analyze the basic engineering issues.

编 码: ME05039	Code: ME05039
课程名称: 汽车构造及发动机原理	Course Title: Vehical Construction and Engine Principle
	Course category: Required Core Course
课程类别: 专业核心	Credit(s): 4
学 分: 4	Offering College/School: College of Mechanical & Vehicle Engineering
开课单位: 机械与运载工程学院	

课程描述: 本课程是车辆工程专业的专业核心课程,以工程图学、机械原理、机械设计为前导课程,为后续专业课程,如汽车理论、汽车设计、汽车系统动力学、汽车振动学、汽车空气动力学等课程的学习提供理论基础。

本课程主要包括汽车发动机、汽车底盘和车身的基本构造与原理等内容,学生需了解汽车底盘、车身以及发动机的整体结构,理解发动机以及汽车各系统的作用和工作原理,掌握相关问题的分析方法,并能灵活运用来解决实际问题。通过学习本课程,学生学会汽车与发动机的相关结构、理论知识,通过拆装实习锻炼和提升实际动手能力等。

Course description: This course is one of the core courses for students who major in vehicle engineering. Led by Engineering Graphics, Mechanical Principle, and Mechanical design. This course lays foundation for the following-up professional courses such as Automobile theory, Automobile design, Vehicle system dynamics, Vehicle vibration, Vehicle aerodynamics, this course lays the foundation for the follow-up professional courses.

The main contents of this course are structure and operation principle of basic components of automobile engine, chassis and body structures. Students need to know the overall structure of automobile and engine. They should understand The function and working principle of each system of automobile and get methods of analyzing related problems, and they can use the methods to solve problems flexibly. Through this course, students can acquire the basic knowledge of vehicle constructure and engine principle, and they can enhance their practical ability by disassembly internship.

编 码: ME05040	Code: ME05040
课程名称: 汽车电子技术	Course Title: Vehicle Electronic Techniques
课程类别: 专业核心	Course category: Required Core Course
学 分: 3	Credit(s): 3
开课单位: 机械与运载工程学院	Offering College/School: College of Mechanical & Vehicle Engineering

课程描述: 本课程是车辆工程专业的专业核心课程, 为全面熟悉专业知识打下基础, 是学习专业后续课程的重要基础。本课程以《计算机导论与程序设计 (C 模块)》、《电工电子学》、《汽车理论》、《汽车构造及发动机原理》、《液压气压与电传动》为前导课程, 为后续专业选修课程及毕业设计等提供必要的基础知识。

本课程分为两大部分, 第一部分为嵌入式系统, 第二部分为汽车电子技术。通过本课程的教学, 使学生熟悉嵌入式系统的组成与工作原理, 掌握嵌入式系统的编程设计方法、了解汽车电子技术的最新动态与发展趋势, 熟悉电子技术在汽车电器与电子控制系统中的应用情况, 掌握汽车电器与电子设备的基本构造及其工作原理。

通过学习本课程, 获得汽车电子控制系统的认知能力、汽车各 ECU 编程控制的认知能力、编写嵌入式系统软件的应用能力、汽车电子控制系统的开发设计能力和创新能力, 养成认真负责和严谨细致的工程技术人员应具备的工作态度和工程素养以及团队合作和口头表达能力。

Course description: This is a core course for vehicle engineering students. It's a foundation to familiar with professional knowledge and study follow-up courses. The leading courses include introduction to computer technology and programming (C module)、electrical and electronics、vehicle theory、vehicle construction and engine principle、hydraulic pneumatic and electric transmission. And the course provides basis for curriculum design and graduation design.

This course covers embedded system and automotive electronics technology .Through this course, The students will familiar with embedded system and master it's programming design methods、will read the latest automotive technologies and trends, will familiar with application of electronic technology in the automotive electrical and electronic control system, will master the basic structure and working principle of automotive electrical and electronic equipment.

Through this course, students learn the working principle of automotive electronic control system, get program ability on vehicle's electronic control unit, get the ability on program soft of embedded system, get the ability to design automotive electronic control system and ability to innovate, develop a serious and responsible and rigorous and meticulous attitude which engineering and technical personnel should have. Written, graphical, teamwork and oral communications are also emphasized.

编 码: ME05041	Code: ME05041
课程名称: 汽车制造工艺	Course Title: Vehicle Manufacturing Technology
课程类别: 专业核心	Course category: Required Core Course
学 分: 2	Credit(s): 2
开课单位: 机械与运载工程 学院	Offering College/School: College of Mechanical & Vehicle Engineering

课程描述: 汽车制造工艺学是一门车辆工程专业核心课程。以汽车构造、互换性与测量技术基础为前导课程, 为专业课程学习提供制造工艺方面的基础。本课程主要包括汽车制造工艺过程的基本概念、工件装夹和机床夹具、汽车零件表面的加工方法、汽车零件的机械加工质量、尺寸链原理与应用、机械加工工艺规程的制定、汽车产品设计的工艺性和典型零件制造工艺等内容, 学生需要了解各种工装夹具, 理解加工定位原理和尺寸链原理, 掌握尺寸链建立与计算方法, 并能灵活运用课程知识设计指定工序夹具。通过学习本课程, 学生学会制造工艺制定, 锻炼和提升学生实际处理问题能力。

Course description: This course is a core curriculum for Vehicle Engineering and the leading courses of which are vehicle structure and Foundation of Interchangeability and Measurement Technology. This course mainly includes the following sections: the basic concepts related to vehicle manufacturing process, how to clamp the manufactured parts and how to design the special fixture, the manufacturing methods for Vehicle parts, how to guarantee the machining accuracy of Vehicle parts, how to establish the dimension chain and solve it, how to formulate machining process planning of typical vehicle parts. Students are required to understand all kinds of fixtures for a machining process, to grasp the methods of determining the DOFs of parts and establishment of dimension chain, and to design a set of fixture for a given machining process using the curriculum knowledge. By learning this course, students master the knowledge about the manufacture of vehicle parts, and their abilities to solve the problems are improved.

编 码: ME05042	Code:ME05042
课程名称: 生产管理学	Course Title:Production Management
课程类别: 专业核心	Course category:Required Core Course
学 分: 2	Credit(s):2
开课单位: 机械与运载工程 学院	Offering College/School:College of Mechanical & Vehicle Engineering

课程描述: 这是一门为工业工程专业学生开设的专业核心课,以管理学和运筹学为前导课程,为工业工程专业方向课程学习提供理论基础、必要实验技能及分析能力。本课程主要包括生产运作管理的基础概念、生产系统的分类及生产类型、生产系统设施规划与布置、需求预测与生产计划、库存分析与控制、主生产计划、物料需求计划、制造资源计划及企业资源计划、项目管理、质量管理、准时生产制、生产运作管理的变革和生产方式。需要学生了解生产管理的基本概念、内容以及发展方向;掌握生产管理的基本原理和方法;明确生产管理的研究方向及其应用领域,能结合生产管理的理论,初步解决生产系统的实际问题。通过学习本课程,学生学会生产管理的基本方法,锻炼和提升综合分析、规划设计、协调/社交、独立学习和创新等多方面能力。

Course description: This course is one of the core courses in Specialized Education for students who major in Industrial Engineering. Led by Management Science and Operations Research, this course lays the foundation for the follow-up professional courses. The main contents include basic concepts of production management , demand forecasting and production planning, The classification of the production system and the production type, location of production system, Inventory analysis and control, MPS, MRP, MRP II , ERP, project management, quality management,JIT, the development of production management. Students need to know the common knowledge about production management, such as concepts, content and development .Also, they should Master the basic principle and method of production management,know the research direction of production management and its application field. Based on the production management theory, they can solve the practical problems of production system. Through this course, students can acquire the basic knowledge of production management and practice ability .The course can foster and improve the student' s abilities in engineering analysis and design, engineering expression and communication,independent learning and innovation.

编 码: ME05043	Code: ME05043
课程名称: 基础工业工程	Course Title: Fundamentals of Industrial Engineering
课程类别: 专业核心	Course category: Required Core Course
学 分: 2	Credit(s): 2
开课单位: 机械与运载工程 学院	Offering College/School: College of Mechanical & Vehicle Engineering

课程描述: 本课程是工业工程专业的专业核心课程,以管理学和工业工程导论为前导课程,为工业工程专业方向课程学习提供理论基础、必要实验技能及分析能力。本课程主要包括工业工程基本概念、工作研究、现场管理方法、工业工程的发展等内容。需要学生了解工业工程的基本概念、内容、学科特点和发展方向以及作用;掌握工作研究的基本原理和方法;明确工业工程的研究及其应用领域,能结合生产系统及其管理问题的实际,初步形成现代工业工程的理念及其系统改善意识。通过学习本课程,学生学会工作研究基础改善方法,获得工业工程 IE 意识,锻炼和提升综合分析、规划设计、协调/社交、独立学习和创新等多方面能力。

Course description: This course is one of the core courses in Specialized Education for students who major in Industrial Engineering. Led by Management Science and Introduction to Industrial Engineering, this course lays the foundation for the follow-up professional courses. The main contents include basic concepts, work study, field management and development directions of Industrial Engineering. Students need to know the common knowledge about Industrial Engineering, such as concepts, contents, characteristic and effect. Also, they should understand the operating principles and methods of work study. Based on actual production system and management problem, the awareness of Industrial Engineering should be built. Through this course, students can acquire the basic knowledge of work study and build the IE awareness. The course can foster and improve the student's abilities in engineering analysis and design, engineering expression and communication, independent learning and innovation.

编 码: ME05044	Code:ME05044
课程名称: 系统工程	Course Title: System Engineering
课程类别: 专业核心	Course category: Required Core Course
学 分: 2	Credit(s): 2
开课单位: 机械与运载工程 学院	Offering College/School: College of Mechanical & Vehicle Engineering

课程描述: 本课程是工业工程专业的专业核心课程, 以运筹学为前导课程。通过该课程的教学使学生能够掌握系统工程的基本概念、基本理论和基本操作技能, 为学生后续的学习及工作实践打下必不可少的基础。主要内容包括: 系统、系统工程、系统分析等重要的基本概念及其子概念; 系统工程方法论; 系统工程常用模型和技术; 系统预测; 系统评价; 系统决策等。通过系统工程的整个教学过程逐渐培养学生的系统思维能力, 培养学生具有定性分析与定量分析相结合的能力, 培养学生具有初步运用系统工程思想和方法分析本专业领域某些实际问题的能力。

Course description: This is a basic course for majors of industrial engineering, led by operation course, aiming at the students' mastery of the basic concepts and theories of system engineering and the development of their operation techniques in system engineering, thus laying a solid foundation for their study of follow-up courses and practical work. The main contents of this course include the basic concepts of system, system engineering and system analysis; system engineering methodologies; system engineering models and technologies; classic methods of system predicting, system assessment and system decision. The study of this course develops the students' ability to systemic analyze problems, to combine qualitative and quantitative analysis methods to solve practical problems in industrial engineering fields with system engineering methodology.

编 码: ME05045	Code:ME05045
课程名称: 工程统计学	Course Title:Engineering Statistics
课程类别: 专业核心	Course category:Required Core Course
学 分: 2	Credit(s):2
开课单位: 机械与运载工程 学院	Offering College/School:College of Mechanical & Vehicle Engineering

课程描述: 本课程是工业工程专业的专业核心课程,以概率论与数理统计为前导课程,为工业工程专业方向课程学习提供理论基础、统计方法及定量分析能力。本课程主要包括工程统计思想、原理和统计方法等内容。需要学生了解工程统计学基本概念、主要方法、学科特点和发展方向;理解工程统计的基本原理;掌握统计方法与分析工具;并能灵活运用于工程、生产与管理实践中的科学定量分析等。通过学习本课程,学生学会数据收集与分析、获得数据探索意识,锻炼和提升了复杂问题进行简化和定量分析,进而建立统计模型等方面能力。

Course description: This course is one of the core courses in Specialized Education for students who major in Industrial Engineering. Led by Probability and Mathematical Statistics, this course lays the foundation for the follow-up professional courses. The main contents include concepts and theories of Engineering Statistics. Students need to know the common knowledge about Engineering Statistics, such as the basic concepts, applied statistical methods and the development directions in this field. Also, they should understand the principle of Engineering Statistics, master the important statistical methods and develop skills of operating the statistics software. Based on actual production system and project management problem, the ability of science questions figuring out and quantitative analysis should be built. Through this course, students can acquire basic knowledge of data collecting and analyzing and build up the awareness of data exploration. The course can foster and improve the student's abilities to simplify the complex problems and build empirical model of related engineering problems.

编 码: ME05046	Code: ME05046
课程名称: 生产系统建模与仿真	Course Title: Modeling and Simulation of Production System
	Course category: Required Core Course
课程类别: 专业核心	Credit(s): 2
学 分: 2	Offering College/School: College of Mechanical & Vehicle Engineering
开课单位: 机械与运载工程学院	

课程描述: 生产系统建模与仿真是工业工程专业的专业核心课,以“概率论与数理统计”和“生产管理学”为先导课程,是一门面向工程实际的应用型课程,具有较强的实践性和应用性。

该课程主要包括离散事件系统建模与仿真的基本原理、方法和技术的介绍,以及离散事件系统仿真技术在生产及物流系统规划设计、分析与优化中的应用等内容。通过该课程的理论学习,使学生系统掌握生产系统建模与仿真的相关理论、相关数学统计模型和仿真数据分析等方法,理解系统建模与仿真在生产及物流系统规划设计、运作及优化中的应用;通过上机实践及案例讨论,使学生熟悉和掌握计算机仿真软件的基本操作,锻炼和提升学生对生产系统、物流系统进行系统建模仿真与优化的能力。

Course description: Based on “Probability and Mathematical Statistics” and “Production Management”, Modeling and Simulation of Production System is a professional core course for students majoring in industrial engineering with strong practicality and applicability.

This course expounds the principle, method and technology of discrete event system simulation comprehensively, with a special focus on discrete event system simulation in the planning, analysis and optimization of the manufacturing & Logistic system. Through this course, students can systematically learn the general theory, relevant mathematical & statistical model and the simulation data analysis of the production system modeling and simulation, profoundly understand the applications of system modeling and simulation in the planning, analysis and optimization of the manufacturing & Logistic system. Computer practice & case discussion help students to master the basic operation of simulation software, master the method for basic discrete event system modeling and simulation.

编 码: ME05047	Code:ME05047
课程名称: 人因工程	Course Title:Human Factors Engineering
课程类别: 专业核心	Course category:Required Core Course
学 分: 2	Credit(s):2
开课单位: 机械与运载工程 学院	Offering College/School:College of Mechanical & Vehicle Engineering

课程描述: 本课程是工业工程专业的专业核心课,以工业工程导论为前导课程,为工业工程专业方向课程学习提供理论基础。本课程主要包括人的生理及心理特点,作业环境,人机系统设计等方面内容。学生需要了解工作环境因素及其对人的影响规律和人的生理特点,理解心理因素在人机系统设计的作用,掌握人机环境系统中作业环境改善,作业空间设计,人机界面设计以及工具设计基本原理和方法。通过本课程的学习,学生学会把人—机—环境系统作为整体,创造适合于人操作的机械设备和作业环境;培养学生应用人因工程的原理和方法进行人机系统的设计和分析评价的能力,使学生树立以“人为核心”的设计观,同时提升学生独立学习和创新等方面能力。

Course description: This course is one of the core courses in Specialized Education for students who major in Industrial Engineering. Led by Introduction to Industrial Engineering, this course lays the foundation for the follow-up professional courses. The main contents of this course include the following sections: characteristics of human physiology and psychology, work environment and design of man-machine system. Students need to know work environment and its effects on human, and understand the roles of characteristics of human psychology in the man-machine system, and master the principles and methods of improvement of work environment, working space design, the man-machine interface design, and the tool design and so on. By studying this course, students take the man-machine-environment system as a whole, and create the most suitable operating machinery equipment and working environment. It can develop the student's ability to design and analysis man-machine system by application of principles and methods, and enable the student to develop a design perspective with taking human as core. It can also foster the abilities of independent learning and innovation.

编 码: ME05048	Code:ME05048
课程名称: 质量管理与可靠性	Course Title:Quality Management & Reliability
	Course category:Required Core Course
课程类别: 专业核心	Credit(s):2
学 分: 2	Offering College/School:College of Mechanical & Vehicle
开课单位: 机械与运载工程学院	Engineering

课程描述: 本课程是工业工程专业的专业核心课程,以机械制造技术、工程统计学为前导课程,为工业工程专业方向课程学习提供理论基础、分析和改善质量与可靠性问题的能力。本课程主要包括质量管理概论、全面质量管理、质量管理体系、供应商质量与顾客满意、设计质量控制、制造服务过程质量控制、质量检验、质量成本、质量改进、可靠性工程等内容。要求学生理解质量管理与可靠性的基本概念基本理论,了解质量管理体系、供应商质量控制方法及顾客满意度测量;重点理解并掌握设计质量控制方法、制造过程质量控制方法、统计抽样方案的设计;熟悉和掌握常用的质量管理分析及改进方法、可靠性分析方法;能灵活运用所学理论和方法发现生产(服务)系统中突出质量问题、并初步具备运用所学质量分析方法对质量问题进行定性定量分析与改善的能力。通过本课程学习,提升学生针对质量及可靠性问题系统分析能力,初步培养对质量形成的全过程进行规划管理、控制与改善的能力。

Course description: This course is one of the core courses in Specialized Education for students who major in Industrial Engineering. Led by Mechanical manufacturing technology and Engineering Statistics, this course lays the foundation for the follow-up professional courses. The main contents include: the basic concepts and principles of quality management & reliability engineering, quality management system, supply quality and customer satisfaction, design quality assurance, quality control in manufacturing, quality inspection, quality cost management, reliability analysis. Students need to master the basic concepts, theories and methods of quality management and reliability. This course develops the students' ability to analyze, control and improve the practical quality problems in the whole product(Service) lifecycle with the methods and instruments of quality improvement and quality control.

编 码: ME05049	Code: ME05049
课程名称: 管理信息系统	Course Title: Management Information System
课程类别: 专业核心	Course category: Required Core Course
学 分: 2	Credit(s): 2
开课单位: 机械与运载工程 学院	Offering College/School: College of Mechanical & Vehicle Engineering

课程描述: 本课程是工业工程专业学生开设的专业核心课。以数据库为前导课程,为课程设计与毕业设计等提供基础。本课程主要内容为管理信息系统的基本开发方法和基本开发过程,具体包括:系统规划、系统分析、系统设计、系统实现和系统评价等。通过该课程的教学使学生能够掌握管理信息系统的基本概念、基本理论和基本开发方法及过程。通过管理信息系统的整个教学过程逐渐培养学生分析问题、概括问题的能力,培养学生具有比较熟练的综合运用管理科学、信息科学、系统科学、行为科学、计算机科学和通讯技术建设一个管理信息系统的能力,帮助企业的经营管理者和决策者在竞争激烈的市场环境中,掌控信息资源。

Course description: This is a basic course for majors of Industrial Engineering. The leading courses include database. And the course provides basis for curriculum design and graduation design. The main contents of this course are the basic development methodology and process of MIS, including system planning, systems analysis, system design, system implementation and system evaluation. Students need to grasp the basic concepts and theories of Management Information System. The study of this course develops the students' ability to analyze and solve practical problems, to Integrated use of management science, information science, system science, behavioral science, computer science and communications technology to build the capacity of a management information system, and To help business managers and decision makers control of information resources in the competitive market environment.

编 码: ME05050	Code:ME05050
课程名称: 有限元法	Course Title:Finite Element Methods
课程类别: 专业核心	Course category:Required Core Course
学 分: 4	Credit(s):4
开课单位: 机械与运载工程 学院	Offering College/School:College of Mechanical & Vehicle Engineering

课程描述: 这是一门为工程力学专业学生开设的专业核心课。核心内容是根据力学中的理论, 利用电子计算机和各种数值方法, 解决力学中的实际问题。通过该课程的教学使学生能够掌握有限元法的基本概念、基本理论和基本方法, 为学生学习相关后续专业课程工程软件及应用打下必不可少的基础; 通过有限单法的整个教学过程逐渐培养学生分析问题、概括问题的能力, 培养学生具有比较熟练的运用有限元法解决工程实际问题的能力; 主要内容为有限元法的基本原理和典型方法, 具体包括: 数值方法的基本理论、平面问题有限元法、杆件问题有限元法、轴对称问题有限元法、板弯曲问题有限元法、结构动力学问题有限元法等。

Course description: This is a core course for majors of Engineering Mechanics. It focuses on the solutions of mechanical problems through mechanical theories, calculative methods and computers, aiming at the students' mastery of the basic concepts, theories and approaches in Finite Element Method, thus laying a solid foundation for their study of follow-up course: Engineering Soft and Its Applications. The study of this course develops the students' ability to analyze and solve practical problems in engineering with the finite element method. The main contents of this course are the basic principles and typical approaches of Finite Element Method, including the basic theories of calculative methods, the finite element method in plane, bar, symmetry structure, plate bending, and structure dynamics.

编 码: ME05051	Code: ME05051
课程名称: 复合材料力学	Course Title: Mechanics of Composite Materials
课程类别: 专业核心	Course category: Required Core Course
学 分: 3	Credit(s): 3
开课单位: 机械与运载工程 学院	Offering College/School: College of Mechanical & Vehicle Engineering

课程描述: 本课程是工程力学专业的专业核心课程,以材料力学、弹性力学、振动理论等为前导课程,为后续课程的学习以及复合材料结构分析与设计提供必不可少的基础。本课程主要包括各向异性弹性力学、单层板的宏观和细观力学、层合板刚度、强度以及弯曲、屈曲和振动等内容,学生需了解复合材料及其相关的力学与结构设计问题,理解复合材料基本概念及其内在关系、复合材料强度准则,掌握单层复合材料的宏观和细观力学分析方法、层合板的宏观力学,并能灵活运用复合材料力学熟练解决结构分析与设计问题等。通过学习本课程,学生学会分析与设计复合材料结构,获得复合材料力学的基本知识,锻炼和提升工程分析与设计、自主学习与创新、论文撰写与交流等方面的能力等。

Course description: This course is a basic course for majors of engineering mechanics. Based on the courses of mechanics of materials, elastic mechanics and mechanics of vibration, mechanics of composite materials provides an essential basis for the follow-up professional courses and composite structure analysis and design. This course mainly includes elastic mechanics of anisotropic materials, micromechanical and macromechanical behavior of a lamina, stiffness, strength of a laminate, bending, buckling and vibration of laminated plates. Students are required to aware the composite and its mechanics and structural design problem, to understand the basic concepts of composite materials and their internal relations, strength criterion of composite materials, to master the micromechanical and macromechanical analysis method for a lamina, the macromechanical of a laminate. Based on the mechanics of composite materials, students could solve the problem of structural analysis and design. By learning this course, students are able to master the analysis and design of composite structure, to acquire the basic knowledge of mechanics of composite materials. The course can foster and improve the students' abilities in engineering analysis and design, independent learning and innovation, paper writing and communication.

编 码: ME05052**Code:**ME05052**课程名称:** 振动理论**Course Title:**Vibration Theory**课程类别:** 专业核心**Course category:**Required Core Course**学 分:** 4**Credit(s):**4**开课单位:** 机械与运载工程
学院**Offering College/School:**College of Mechanical & Vehicle
Engineering**课程描述:** 本课程是一门为机械、土木、材料、数学等非力学专业学生开设的力学基础课。

- 1)使学生能掌握振动力学的基本概念、基本理论及分析方法,为学生学习后续课程打下基础。
- 2)通过振动力学的教学,逐渐培养学生将复杂的工程实际问题抽象简化为便于计算的力学模型,并进行数学求解的能力;
- 3)培养学生基于基本概念和公理进行逻辑推理的能力;独立思考以及创新的能力。

Course description: This course is a basic Mechanics course for students specialized in mechanical engineering, civil engineering, material engineering, mathematics and other non-mechanical majors.

- 1) Enable students to master the basic concepts, theories and analytical methods of statics, kinematics and dynamics; Lay foundations for the subsequent courses.
- 2) Through theoretical mechanics teaching, students will gradually develop abilities of simplifying complex engineering problems into simply mechanical model for the computing purpose, and that of solving mathematical problems as well.
- 3) To develop the students' abilities of logical reasoning based on the basic concepts and axioms, and that of independent thinking and innovation.

编 码: ME05053	Code: ME05053
课程名称: 实验力学	Course Title: Experimental Mechanics
课程类别: 专业核心	Course category: Required Core Course
学 分: 3	Credit(s): 3
开课单位: 机械与运载工程 学院	Offering College/School: College of Mechanical & Vehicle Engineering

课程描述: 本课程是工程力学专业的专业核心课程,以理论力学、材料力学等为前导课程,为工程力学专业课程提供实验理论和技能储备。本课程主要讲授用各种实验方法和手段对工程结构进行应力应变分析,主要包括误差分析与数据处理,相似理论与模型测试、电测法和光测法等内容。学生需了解实验力学各种新方法,熟练掌握以电测和光测为主的各种实验方法,并能灵活运用于工程结构应力分析。通过学习本课程,学生学会利用实验力学方法验证在一定假设条件下所得到的理论分析结果的可靠性;获得利用实验力学方法认识问题的本质、揭示某些现象的力学规律的基础理论和技术方法;锻炼和提升利用实验力学方法解决工程结构分析问题的能力。

Course description: Experimental Mechanics is a professional core course for the major of Engineering Mechanics. This course is on the basis of Theoretical Mechanics and Materials Mechanics, and provides experimental theory and skills for other professional courses. This course mainly teaches experimental methods and techniques for stress and strain analysis of engineering structures, including error analysis and data processing, similarity theory and model test, electrical and optic measuring methods. The students are required to know about a variety of new experimental methods, and to be proficient on the principle, technique and application of the electrical and optic measuring methods. This course is designed to help students to achieve the ability of verifying the reliability of the results obtained using theoretical analysis on the basis of certain hypothesis, and discovering the essence and proposing hypothesis and establishing mechanic models and theories, and resolving the engineering problems in structural analysis.

编 码: MS04208	Code: MS04208
课程名称: 材料力学	Course Title: Mechanics of Materials
课程类别: 学类核心	Course category: Major Survey Course
学 分: 3	Credit(s): 3
开课单位: 机械与运载工程 学院	Offering College/School: College of Mechanical & Vehicle Engineering

课程描述: 本课程是工程力学、机械、材料、土木等理工科专业的专业核心课程，以高等数学、大学物理和理论力学为前导课程，为后续专业课程，如弹性力学、塑性力学、流体力学、有限元和实验应力分析等方面课程提供必不可少的基础。

本课程主要包括杆件的四个基本变形和压杆稳定的基本分析方法内容，学生需了解基本假设及提高构件承载能力的措施，理解基本概念、基本理论、基本方法，掌握对各种杆件的强度、刚度和压杆稳定性的基本问题的分析和计算，并能灵活运用材料力学的基本理论和分析方法等。通过学习本课程，学生能够掌握固体力学的基本概念及一维问题——杆件的强度、刚度和稳定性的计算，学会分析、概括以及解决变形杆件问题的方法，获得对杆件的应力、应变和变形以及强度、刚度和稳定性问题明确的基本概念、处理力学问题的基本分析方法和实验技能，锻炼和提升逻辑思维能力、抽象简化能力、实践应用能力。

Course description: This course is a professional core courses for the majors of engineering mechanics, mechanical, materials, civil engineering, etc. Based on the courses of higher mathematics, university physics and theoretical mechanics, material mechanics provides an essential basis for the follow-up professional courses, such as elastic mechanics, plastic mechanics, fluid mechanics, finite element and experimental stress analysis and so on curriculum.

This course mainly includes members of four basic deformation and buckling of the basic analysis method. Students are required to aware the basic assumptions and the measures to improve the bearing capacity of the rod components, understand basic concepts, basic theory and basic methods, to master the analysis and calculation of the basic problems of the strength, stiffness of various rods and the stability of pressed bar, and to flexibly use the basic theories of mechanics of materials and analysis methods. By learning this course, students are able to master the basic concept of solid mechanics and the calculation of one-dimensional problems, i.e. the strength, stiffness and stability of rods, learn the methods to analyze, summarize and solve the problems of deformed rods, and acquire clear basic concept for the problems of stress, strain and deformation, and strength, stiffness and stability of rods, the basic analysis method and the experimental skills to deal with mechanical problems, exercise and enhance the logic thinking ability, abstract simplified capacity and practical application ability.

编 码: MS04209	Code:MS04209
课程名称: 理论力学 A	Course Title:Theoretical Mechanics
课程类别: 学类核心	Course category:Major Survey Course
学 分: 4	Credit(s):4
开课单位: 机械与运载工程 学院	Offering College/School:College of Mechanical & Vehicle Engineering

课程描述: 本课程是一门为材料成型及控制工程等非力学专业学生开设的力学基础课程，以高等高等数学、普通物理学为先导课程。为材料力学、机械设计等后续课程学习提供理论基础。本课程主要包括静力学、运动学和动力学等知识。通过本课程学习，使学生能掌握静力学、运动学及动力学的基本概念、基本理论及分析方法，为学生学习后续专业课程如材料力学等打下基础。通过理论力学的教学，逐渐培养学生将复杂的工程实际问题抽象简化为便于计算的力学模型，并进行数学求解的能力。培养学生基于基本概念和公理进行逻辑推理的能力、独立思考以及创新的能力。

Course description: This course is one of the basic Mechanics courses for students who major in Materil Modeling and Control Engineering. Led by Advanced Mathematics and Physics, this course lays the foundation for the follow-up professional courses, such as Mechanics of Materials and Fundamentals of Mechanical Design. The main contents include theories of statics, kinematics and dynamics. Learning through this course, enable students to master the basic concepts, theories and analytical methods of statics, kinematics and dynamics; Lay foundations for the subsequent courses such as material mechanics, structural mechanics. Through theoretical mechanics teaching, students will gradually develop abilities of simplifying complex engineering problems into simply mechanical model for the computing purpose, and that of solving mathematical problems as well. To develop the students' abilities of logical reasoning based on the basic concepts and axioms, and that of independent thinking and innovation.

编 码: MS04210	Code:MS04210
课程名称: 工程力学	Course Title:Engineering Mechanics
课程类别: 学类核心	Course category:Major Survey Course
学 分: 3	Credit(s):3
开课单位: 机械与运载工程 学院	Offering College/School:College of Mechanical & Vehicle Engineering

课程描述: 本课程是一门为工科学生开设的专业基础课。通过该课程的学习, 学生能够进行固体的静力学分析, 能够掌握固体力学的基本概念及一维问题——杆件的强度、刚度和稳定性的计算, 为学生学习相关的后续专业课程打下必不可少的理论基础。通过工程力学的教学过程逐步培养学生分析、概括以及解决问题的能力。主要内容为刚体静力学、杆件的四个基本变形、应力状态和强度理论。

Course description: Engineering Mechanics is a required basic specialized course for students of engineering. Through this course, students are required to master the basic concepts of solid mechanics and the calculating skills on the strength, stiffness of bars and beams. This course will supply the fundamental theories for the follow-up specialized courses, and develop the ability to analyze and resolve problems for students. The main contents of the course include static mechanics of rigid body, four basic deformations, combined deformations, the stress state, strength theories and mechanical properties of materials

编 码: DT03007	Code:DT03007
课程名称: 造型基础	Course Title:Form
课程类别: 学门核心	Course category:Introductory Major Course
学 分: 4	Credit(s):4
开课单位: 设计艺术学院	Offering College/School:School of Design

课程描述: 《造型基础》是造型艺术专业（视觉传达、工业设计等）必须的一门核心基础课程。本课程结构大致分为包括横向课程和纵向课程，横向课程环节主要通过快速表现训练、构图训练、物象研究、材料的加工运用等途径拓展学生的感受能力、表现能力及观察方法，纵向课程环节主要通过物象研究、归纳抽象等途径提升学生的形象思维能力及创造能力。课程的基本思路是从客观物象到主观自我、从自然形象到艺术语言的转化过程，在这个转化的训练过程中，让学生掌握观察、感受、归纳、抽象等视觉形象思维的基本方法，为以后的各类课程建立一个坚实的基础。

Course description: Basis of plastic arts" is a core curriculum for Plastic Arts Design (vision communication, industrial design, etc). This curriculum structure includes horizontal course and longitudinal course. The horizontal course is to expand Ss' ability for feeling and performing through training on fast performance, composition, images and material processing.The longitudinal course aims at improving Ss' ability for imagery thinking & creation by images research, conclusion and abstraction. It develops Ss' ability on observation, perception, conclusion and abstraction through a series of transforming trainings, which contribute a stronger foundation for following curriculums.

编 码: DT03008

Code:DT03008

课程名称: 色彩与材料

Course Title:Color & Materials

课程类别: 学门核心

Course category:Introductory Major Course

学 分: 3

Credit(s):3

开课单位: 设计艺术学院

Offering College/School:School of Design

课程描述: 内容暂缺

Course description: There is no contents at present.



编 码: DT03009**Code:**DT03009**课程名称:** 摄影**Course Title:**Photography**课程类别:** 学门核心**Course category:**Introductory Major Course**学 分:** 2**Credit(s):**2**开课单位:** 设计艺术学院**Offering College/School:**School of Design

课程描述: 本课程的主要内容是帮助学生了解中外摄影史, 对学生进行摄影基本原理教育, 了解摄影特性。熟练掌握各类摄影器材的使用和摄影创作规律, 以及不同题材的表现方法。要求学生认真选读指定的有关书籍和观摩中外优秀摄影作品, 按要求进行各单元摄影实验, 独立完成规定的作业和进行摄影创作实践。

Course description: The main content of this course is to help students understand the history of photography, the basic principle of photography in student education, understanding the photographic properties. Studying all kinds of photographic skill and photographic creation rules. Meantime, learning the expression method of different subjects. Students are required to read the specified related books and to inspect the excellent photography, photography experiment, each unit in accordance with requirements specified independently work and photography creation practice.

编 码: DT03010

Code:DT03010

课程名称: 设计思维与二维表达

Course Title:Design Thinking & 2D Visualization

课程类别: 学门核心

Course category:Introductory Major Course

学 分: 2

Credit(s):2

开课单位: 设计艺术学院

Offering College/School:School of Design

课程描述: 设计思维与表达: 二维是一门设计基础课, 通过运用形式美的基本原理, 从自然生活中去发现感受美, 然后提炼创造美, 发现自然形态与艺术语言的关系, 从而建立新的思维方式和造型观念, 达到丰富艺术想象力和启发创造力的目地。

Course description: Design Thinking & Visualization:2D is a basic design course. By using The basic principles of formal beauty, we can find beauty from the natural and feel it. Then, we can refine and create it, and find the relationship between natural and art. So as to establish a new way of thinking and modeling concepts to achieve a rich artistic imagination and inspire creativity the head.



编 码: DT03011

Code:DT03011

课程名称: 设计思维与三维表达

Course Title:Design Thinking & 3D Visualization

课程类别: 学门核心

Course category:Introductory Major Course

学 分: 2

Credit(s):2

开课单位: 设计艺术学院

Offering College/School:School of Design

课程描述: 本课程是为了初步掌握三维造型的基本概念、形式法则、形式语言、构成要素、设计原理及设计方法, 最终了解和掌握立体形体的基本原理, 具有三维造型的基本的设计能力。学会使用基本的形式法则、形体语言、空间思维能力, 通过全面培养学生在立体形体设计和制作方面的能力, 提高学生的形态语言、空间想象能力和基本技法, 解决问题的审美能力和自主创新能力。

Course description: This course is designed to initially grasp the basic concepts of the three-dimensional shape, in the form of rules, in the form of language, elements, design principles and design methods, and ultimately to understand and master the basic principles of three-dimensional form, the basic design capabilities with three-dimensional modeling. Learn to use the basic laws of form, body language, spatial thinking skills, the ability to train students through a comprehensive three-dimensional form in terms of design and production, to improve students' form language, spatial imagination and basic techniques, problem-solving capability of independent innovation.

编 码: DT03012

Code:DT03012

课程名称: 视觉艺术创意

Course Title:Visual Art Ideation

课程类别: 学门核心

Course category:Introductory Major Course

学 分: 2

Credit(s):2

开课单位: 设计艺术学院

Offering College/School:School of Design

课程描述: 内容暂缺

Course description: There is no contents at present.



编 码：DT03013

Code:DT03013

课程名称：社会学与文化人
类学

Course Title:Culture Anthrography

Course category:Introductory Major Course

课程类别：学门核心

Credit(s):2

学 分：2

Offering College/School:School of Design

开课单位：设计艺术学院

课程描述： 内容暂缺

Course description: There is no contents at present.



编 码: DT04001

Code:DT04001

课程名称: 设计概论

Course Title:Introduction to Design

课程类别: 学类核心

Course category:Major Survey Course

学 分: 2

Credit(s):2

开课单位: 设计艺术学院

Offering College/School:School of Design

课程描述: 内容暂缺

Course description: There is no contents at present.



编 码: DT04005**Code:**DT04005**课程名称:** 设计史**Course Title:**History of Design**课程类别:** 学类核心**Course category:**Major Survey Course**学 分:** 2**Credit(s):**2**开课单位:** 设计艺术学院**Offering College/School:**School of Design

课程描述: 《工业设计史》是工业设计专业的一门核心专业基础课程，其教学目的是使学生了解人类历史中，特别是工业革命以来设计发展演变的脉络，包括各种设计学派、设计风格、著名设计师及其作品以及设计发展的历史条件。这对于学生正确理解工业设计内在动力与源泉，把握工业设计的未来发展有非常重要的作用。

Course description: “The history of industrial design "is a core foundation course for design students. The objective of course is to make students understand the human history, especially the development and evolution of design since the industrial revolution, including various design school, design style, the famous designers and their works and the historical conditions of design development. It is very important for students to grasp the direction of industrial design in future.

编 码: DT04006**Code:**DT04006**课程名称:** 设计心理学**Course Title:**Design psychology**课程类别:** 学类核心**Course category:**Major Survey Course**学 分:** 2**Credit(s):**2**开课单位:** 设计艺术学院**Offering College/School:**School of Design

课程描述: 本课程为工业设计专业学生开设的专业基础课,通过该课程的教学使学生能够掌握设计心理学的基本理论体系,并初步掌握设计心理学原理在产品设计与艺术设计中的应用,为学生学习相关后续专业课程,如人机工程、系统设计等,打下必不可少的基础。通过设计心理学的整个教学过程,逐渐培养学生理性分析问题、概括问题的能力,培养学生具有创造性地提出和解决设计问题的能力,培养学生具备独立查找并阅读其他相关理论书籍和资料的能力。本课程以理论方法学习为主,实践教学为辅,主要教学形式包括:讲授、演示、设计实践及讲评等。

Course description: Design psychology is a basic professional theory course for industrial design student. The goal of the course is to develop skills, experience and ability in applying some design psychology theories into industrial design. Besides, the course also develops the ability of rational thinking, deep design and team working. This course also be an important foundation for students who need to study ergonomics and system design.

编 码: DT04007

Code:DT04007

课程名称: 设计研究基础

Course Title:Design Research Basis

课程类别: 学类核心

Course category:Major Survey Course

学 分: 2

Credit(s):2

开课单位: 设计艺术学院

Offering College/School:School of Design

课程描述: 本课程是设计学课程体系中科学与艺术精神培养的基本理论课程。本课程主要介绍设计研究的基本理论、基本方法和工具, 树立学生设计研究的基本理念, 形成设计研究的总体框架, 并能够初步开展简单的设计研究工作, 为后续的设计工作中的具体的研究性工作奠定方法论的基础。

Course description: “The Basis of Design Research” is a theory course on scientific minds in design and art students. The course introduces basic theory, methods and tools of design research. The course can help students to produce the basic vision and structure of design research and conduct simple entry-level design research, which will build up the basis of the following research jobs in designing work.

编 码: DT04009**Code:**DT04009**课程名称:** 文字与标志**Course Title:**Graphics and Typography**课程类别:** 学类核心**Course category:**Major Survey Course**学 分:** 2**Credit(s):**2**开课单位:** 设计艺术学院**Offering College/School:**School of Design

课程描述: 本课程为艺术设计类专业学生的必修课,属专业设计课程。通过系统讲授与学习,使学生熟知标志设计的概念、特征、内容、分类;基本的设计要素及方法和技巧;有效、全面地了解和掌握较高的概括能力、造型能力、架构能力,来表达标志所代表的企业精神、企业文化,使标志所承载的信息合理、完美、全面地、有效地、迅速地传播。

Course description: This course is a compulsory class designed for art design majors' students. It is a professional design course. Through systematical teaching and learning, the students are familiar with the concept of logo design, features, content, classification, basic design elements and methods and techniques; comprehensively understand and grasp high generalization ability, modeling capabilities, architecture, ability to express the entrepreneurial spirit and corporate culture that a logo represents; and making the information carried by a logo legitimately, perfectly, comprehensively, effectively and rapidly spread.

编 码: DT04010

Code:DT04010

课程名称: 造型特征与情境

Course Title:Semantics Features and Context of Form

课程类别: 学类核心

Course category:Major Survey Course

学 分: 2

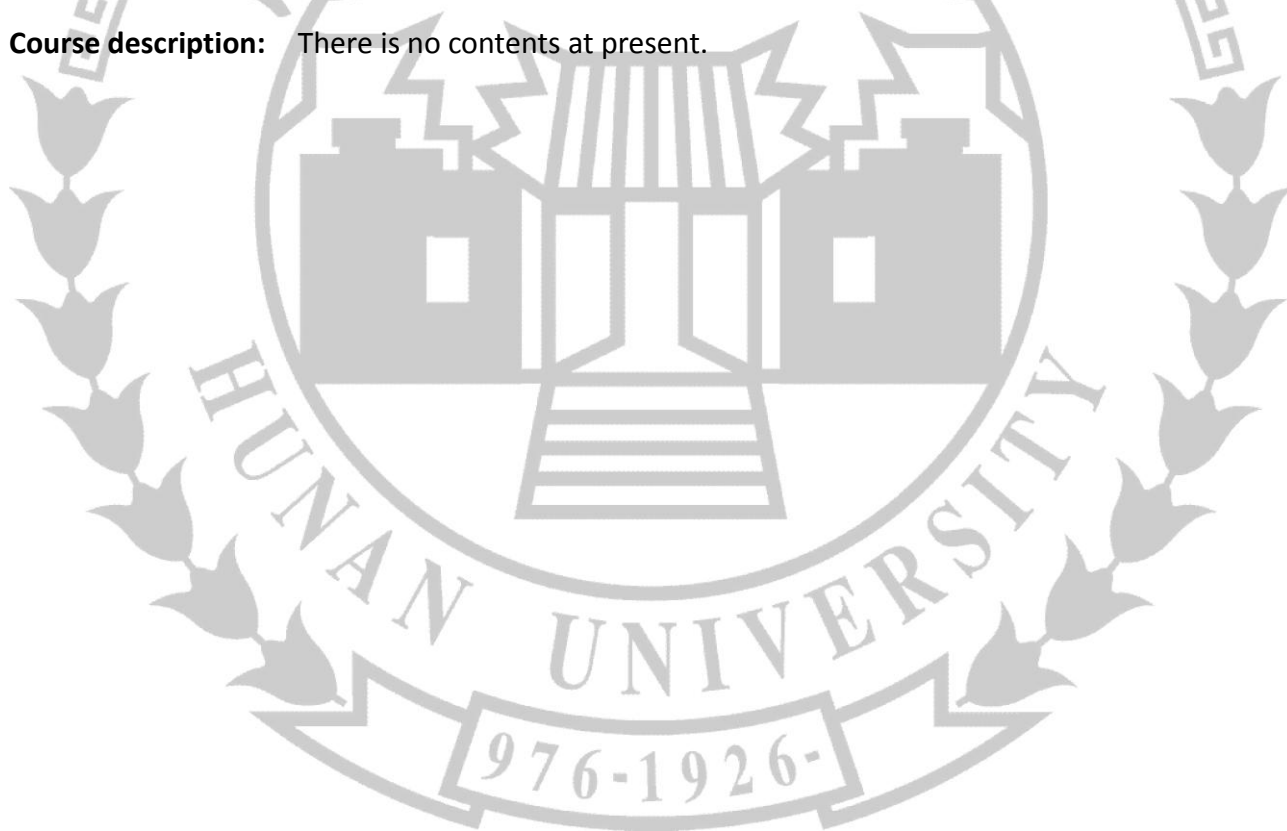
Credit(s):2

开课单位: 设计艺术学院

Offering College/School:School of Design

课程描述: 本课程是一门为工业设计、产品设计专业学生开设的专业核心课程, 以设计概论、设计创意等课程为前导课程, 为学生进入后续专业核心课程的学习提供方法与技能。本课程主要教授产品造型的基本概念、基本理论和基本的产品造型设计技能, 基于特征的产品形态设计方法, 以及基于语义与情境的形态设计过程。从感性和理性两个方面培养学生对产品造型的想象能力、认知能力及创造能力。通过整个教学过程的理论学习及设计训练逐步让学生掌握产品造型设计中相关的技术知识, 了解产品形态的功能作用、产品形态的审美价值和产品形态的语义。逐渐培养学生综合思维的能

Course description: There is no contents at present.



编 码: DT04011

Code:DT04011

课程名称: 整合设计表达

Course Title: Collaborative Visualization

课程类别: 学类核心

Course category: Major Survey Course

学 分: 2

Credit(s): 2

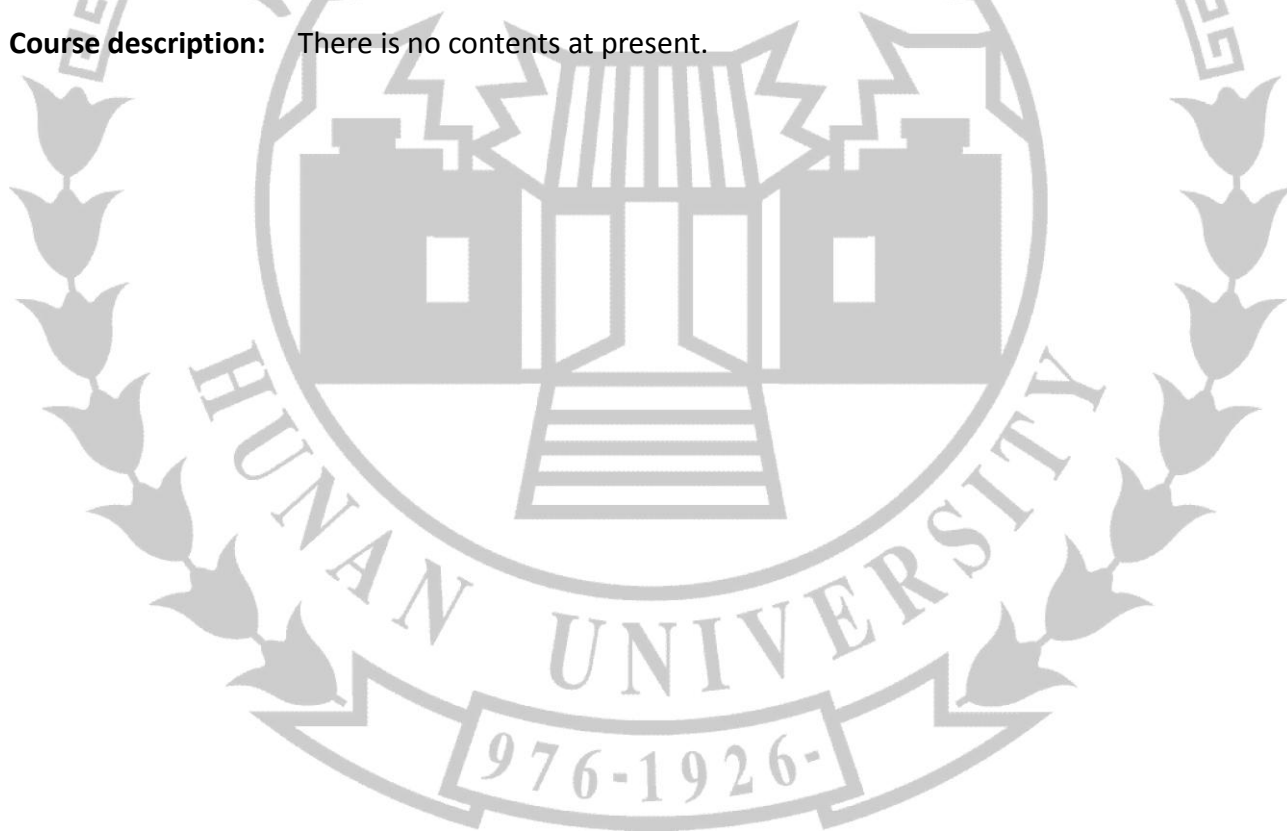
开课单位: 设计艺术学院

Offering College/School: School of Design

课程描述: 本课程是一门为工业设计、产品设计和视觉传达专业学生开设的学类核心必修课程。以设计基础为前导课程, 为后续的专业课程学习提供视觉化表达的技术手段。

本课程主要以设计创新活动中信息流程系统的表达方式为教学内容, 包括设计草图、快速表现效果图、信息图表和框架图等设计表达方式的教学与练习, 让学生们学习如何选择并利用相应的设计表达方式深化设计思维, 视觉化设计思想。学生通过课程的学习, 掌握不同设计领域的相应设计表达方式与技能, 同时锻炼和提升设计思维, 并兼顾文字与语言表述能力、学生组织、传播设计信息的能力培养。

Course description: There is no contents at present.



编 码：DT04012

Code:DT04012

课程名称：设计创意

Course Title:Design Ideation

课程类别：学类核心

Course category:Major Survey Course

学 分：3

Credit(s):3

开课单位：设计艺术学院

Offering College/School:School of Design

课程描述： 内容暂缺

Course description: There is no contents at present.



编 码：DT04013

Code:DT04013

课程名称：产品创意设计

Course Title:Product Innovation Design

课程类别：学类核心

Course category:Major Survey Course

学 分：2

Credit(s):2

开课单位：设计艺术学院

Offering College/School:School of Design

课程描述： 内容暂缺

Course description: There is no contents at present.



编 码: DT04014**Code:**DT04014**课程名称:** 设计批评**Course Title:**Design Critics**课程类别:** 学类核心**Course category:**Major Survey Course**学 分:** 2**Credit(s):**2**开课单位:** 设计艺术学院**Offering College/School:**School of Design

课程描述: 本课程是设计学课程体系中进入高年级阶段的必修课程，本课程主要介绍设计批评的基本观念、理论和方法，涉及美学（设计美学、关系美学等）、技术哲学、社会学、文化研究等诸多文化研究共通的前沿领域。通过本课程，使学生建立对当代设计的评价、批判的基本价值体系，使他们能从学理层面上对各类设计现象及当下设计中存在的问题进行理论分析，提升学生发现设计问题的能力，改变过去仅停留在审美和功能层面，感性的、经验式的批评习惯和做法，为未来设计创新奠定思考的基础，提供更多创造的可能性。

Course description: This course is a compulsory courses designed for senior college student majored in art&design. This course introduces the basic concepts, theories and methods of design criticism, involved some cutting-edge cultural studies fields of aesthetics (design aesthetics, the relationship between aesthetics, etc.), technical philosophy, sociology. Through this course, students will construct the basic value system and evaluation, critical system of contemporary design.

编 码: DT04015

Code:DT04015

课程名称: 设计学科与职业
发展

Course Title:Design & Career Development

Course category:Major Survey Course

课程类别: 学类核心

Credit(s):1

学 分: 1

Offering College/School:School of Design

开课单位: 设计艺术学院

课程描述: 内容暂缺

Course description: There is no contents at present.



编 码：DT04016

Code:DT04016

课程名称：人机工程学

Course Title:Ergonomics

课程类别：学类核心

Course category:Major Survey Course

学 分：2

Credit(s):2

开课单位：设计艺术学院

Offering College/School:School of Design

课程描述： 以人机工程的三个基本要素：人、对象（机）和环境为体系和结构框架，讲授以“人”为核心的人机工程系统性理论知识；传授分析方法和实验技能；培养理论结合实际运用的综合性能力；对培养复合型设计人才起到理论指导作用。

Course description: The course introduce Human Factor systematic theoretical knowledge. The course theoretical framework is base on the three basic elements of Human Factors : Human, Object(machine), Environment. also Include analytical methods and experiment skills. Course emphasis on Human-centered design theory with practice and culture your integrated design talent .



编 码: DT04024

Code:DT04024

课程名称: 艺术史

Course Title:History of Arts

课程类别: 学类核心

Course category:Major Survey Course

学 分: 2

Credit(s):2

开课单位: 设计艺术学院

Offering College/School:School of Design

课程描述: 内容暂缺

Course description: There is no contents at present.



编 码: DT04025

Code:DT04025

课程名称: 设计管理与战略

Course Title:Management Design & Strategy

课程类别: 学类核心

Course category:Major Survey Course

学 分: 2

Credit(s):2

开课单位: 设计艺术学院

Offering College/School:School of Design

课程描述: 内容暂缺

Course description: There is no contents at present.



编 码: DT05002

Code:DT05002

课程名称: 设计模型

Course Title:Design Model

课程类别: 专业核心

Course category:Required Core Course

学 分: 3

Credit(s):3

开课单位: 设计艺术学院

Offering College/School:School of Design

课程描述: 内容暂缺

Course description: There is no contents at present.



编 码: DT05017**Code:**DT05017**课程名称:** 交互数字媒体技术与设计**Course Title:**Digital Design & Interactive Technology**Course category:**Required Core Course**课程类别:** 专业核心**Credit(s):**3**学 分:** 3**Offering College/School:**School of Design**开课单位:** 设计艺术学院

课程描述: 本课程开设在第一学期、目的从设计专业学习的开始阶段就培养学生对新技术的兴趣、切身理解软硬件结合的交互性设计技术原理。通过学习 Arduino、Processing 等开发环境并完成 2 个作业、掌握典型软硬件交互原型开发技术、培养对于人机交互的逻辑性编程思维能力。通过贯穿在具体技能学习背后的传感技术、信号处理、电工学、面向对象的编程等若干知识点的科普式讲述、让学生初步了解交互性产品的“功能黑箱”、避免传统艺术设计背景学生“拍脑袋想概念”的思维模式、锻炼学生多动手实践的好习惯、并对开源硬件、创客及众筹等当今社会创新

Course description: This course should be conducted in the first semester in Year 1. The objective is developing students' interest on new technologies in the beginning stage of professional design education. From studying Arduino, Processing and complete 2 assignments, students could handle typical software and hardware interactive prototyping techniques, develop their logic programming thinking in human computer interaction. Through teaching basic knowledge of sensors, signal processing and OOP following technical study, students could understand the functional black box behind product form, encourage them “do it test it” beyond “just concept”.

编 码: DT05018

Code:DT05018

课程名称: 色彩材料与工艺

Course Title:CMF

课程类别: 专业核心

Course category:Required Core Course

学 分: 2

Credit(s):2

开课单位: 设计艺术学院

Offering College/School:School of Design

课程描述: 本课程让学生系统了解色彩、材料与工艺的发展和流行趋势, CMF 作为连结产品与用户之间深层次的感性部分、其与设计的密切关系。学生将在本课程中通过完成 CMF 基础概况研究和选定 CMF 特定对象研究, 基于这些研究, 做出设计产品。授课方式为讲授、设计讨论。

Course description: This course enables students to know CMF development and trend and its important role in tightly linking products and users emotionally. Students will be guided to conduct extensive and intensive research on CMF, and design products based on their research. This course includes lecturing, discussions, design research and practice.



编 码: DT05019

Code:DT05019

课程名称: 服务设计与商业

Course Title:Service Design & Business Model

模式

Course category:Required Core Course

课程类别: 专业核心

Credit(s):2

学 分: 2

Offering College/School:School of Design

开课单位: 设计艺术学院

课程描述: 内容暂缺

Course description: With a growing importance of service-oriented innovation in business sector as well as public sector, service design has gained a growing attention over the recent years. Services, defined as ‘the application of competences by one party for the benefit of another (Vargo et al., 2008)’, have distinctive characteristics, different from tangible products, thus designers are required to have sufficient knowledge and skills in order to design services. This course aims to 1) help students to gain in-depth understanding on service design through lectures and case studies, and 2) provide an opportunity to practice service design specific design tools through a series of workshops and design exercises.

编 码: DT05020

Code:DT05020

课程名称: 品牌设计与识别

Course Title:Brand Design & Identity

课程类别: 专业核心

Course category:Required Core Course

学 分: 2

Credit(s):2

开课单位: 设计艺术学院

Offering College/School:School of Design

课程描述: 品牌形象识别设计是品牌与企业形象设计方向的主干专业课程, 是 CI 设计、VI 设计到视觉识别设计课程的沿革, 是以品牌形象为中心, 涉及品牌标识、品牌视觉识别整体形象、品牌形象推广等各方面内容的综合性专业课程, 是训练学生品牌设计方向全面的设计能力及综合表现能力的实战课程。

Course description: Brand Identity Design is the main course of the Brand and Corporate Image Design Direction, It is the evolution from CI design, VI design to Visual Identity Design course, and is an integrated curriculum centering the brand image, involving all aspects of brand identity, brand visual identity image, brand image promotion etc. What's more, it is a practical course to train the design ability of students in brand design direction and the comprehensive performance ability.

编 码: DT05021	Code:DT05021
课程名称: 复杂设计系统	Course Title:Complex System Design
课程类别: 专业核心	Course category:Required Core Course
学 分: 2	Credit(s):2
开课单位: 设计艺术学院	Offering College/School:School of Design

课程描述: 《系统设计》课程是面向工业设计本科专业高年级的一门专业核心能力提升课程，以系统的解决方案、跨学科的综合设计、可持续设计、以人为中心的设计、全球化视野与本土化相结合的设计为训练目标。

课程面对新的社会条件和技术基础的变革情况下，设计专业所面临的跨专业、多领域、目标未知等复杂情境下的系统设计问题，重点引入系统设计（SystemDesign）、互联网时代的设计思维（InternetThinkinginDesign）和设计生态（DesignEcology）的概念，从思维、方法和实践三个层面，要求学生突破传统设计视。

Course description: "System Design" course is a professional core curriculum for senior undergraduate industrial design students to enhance the capability to systems solutions, cross-disciplinary integrated design, sustainable design, human-centered design, global vision and localization the design is a combination of training objectives.

By facing the new change of the new situation of social conditions and technical basis, the system design issues across disciplines in many fields, the target of unknown design professionals and other complex situations facing down, focusing on the introduction of the system design (System Design), the design of the Internet age thinking (Internet Thinking in Design) and ecological (Design Ecology) conceptual design, from thinking, methods and practices of the three levels, students are required to break through the traditional design perspective and new understanding of the complexity of the design objects, systematic and cross-cutting nature, from Faced with the challenge to identify opportunities, understand and elaborate issues will be converted into creative opportunities and build ideas to put under a lot of constraints to meet the complex design issues, such as business and social innovation, including service model / business model / information exchange / the overall design of the product platform integration solutions (Holistic Solution) and implementation of programs (Implementing Solution). Courses focus on training students to design elements of complex systems thinking to solve practical problems of habit and the ability to achieve the vision and skills upgrading converted from In-Box to the Out-Box.

编 码: DT05022

Code:DT05022

课程名称: 工作坊设计实践

Course Title:Design Workshop

课程类别: 专业核心

Course category:Required Core Course

学 分: 2

Credit(s):2

开课单位: 设计艺术学院

Offering College/School:School of Design

课程描述: 内容暂缺

Course description: There is no contents at present.



编 码: DT05023

Code:DT05023

课程名称: 专题设计实践

Course Title:Design Studio

课程类别: 专业核心

Course category:Required Core Course

学 分: 2

Credit(s):2

开课单位: 设计艺术学院

Offering College/School:School of Design

课程描述: 内容暂缺

Course description: There is no contents at present.



编 码: DT05024

Code:DT05024

课程名称: 整合设计实践

Course Title:Integrated Design Practice

课程类别: 专业核心

Course category:Required Core Course

学 分: 3

Credit(s):3

开课单位: 设计艺术学院

Offering College/School:School of Design

课程描述: 内容暂缺

Course description: There is no contents at present.



编 码: DT05025**Code:**DT05025**课程名称:** 网页设计**Course Title:**Web Design**课程类别:** 专业核心**Course category:**Required Core Course**学 分:** 3**Credit(s):**3**开课单位:** 设计艺术学院**Offering College/School:**School of Design

课程描述: 本课程主要介绍网页前端视觉设计与开发的相关流程、方法与工具,着重培养学生提升网页视觉体验,处理响应式页面布局,以及运用 HTML、CSS 以及 JavaScript 等技术构建前端页面的能力,对学生在信息与交互设计领域从事研究及实践具有十分重要的意义。课程的教学形式主要包括讲授、演示、讨论、设计实践及讲评等。

Course description: This course introduces the process, methods and tools in website's front-end visual design and development. It can help students develop an ability to improve web visual experience, handle responsive design issues, and build front-end web page with technologies such as HTML, CSS and JavaScript. This course is essential to their research and practice in the field of information and interaction design. Various approaches are employed in this course including lecturing, demonstrating, discussion, design practice, and commentin

编 码: BA01001(02)	Code:BA01001(02)
课程名称: 专业导论课	Course Title:Program Introduction
课程类别: 专业核心	Course category:Required Core Course
学 分: 0+(1)	Credit(s):0+(1)
开课单位: 工商管理学院	Offering College/School:College of Business Adminstration
课程描述: 本课程是财务管理专业的专业核心课程, 为学生选专业和将来的专业发展提供指导和帮助。	

本课程主要包括财务管理专业的特色、专业建设情况、培养目标、学科定位、教学规划、就业情况、能力素质培养、如何增强就业竞争力等内容。学生需了解整个管理学科中各专业的特点及相互之间关系, 理解财务管理专业与会计专业、金融专业的联系与差异, 对财务管理专业的课程体系和就业方向有一个比较明确的认识。通过学习本课程, 使学生不仅在选专业时能够明确目标, 而且将来就读本专业时能明确发展方向。

Course description: This course is a compulsory course for the financial management, which provides guidance and help for students to choose professional and professional development in the future.

This course mainly includes financial management specialty, specialty construction, training objectives, subject orientation, teaching plan, employment situation, ability training, how to enhance the competitiveness of employment and so on. Students need to understand the characteristics of the entire management disciplines and their relationship with each other, understanding the relation and difference between financial management majors and accounting majors and finance major, the system of financial management professional course system and employment direction has a relatively clear understanding. By learning this course, students not only in the selection of professional can clear objectives and future readers of professional can clear the direction of development.

编 码: BA01001(02)**Code:**BA01001(02)**课程名称:** 专业导论课**Course Title:**Program Introduction**课程类别:** 专业核心**Course category:**Required Core Course**学 分:** 0+(1)**Credit(s):**0+(1)**开课单位:** 工商管理学院**Offering College/School:**College of Business Administration

课程描述: 本课程是一门为电子商务专业学生开设的专业入门课。该课程分为四个主题讲座,每个主题 2 小时,分别是电子商务专业培养目标和培养方案、电子商务专业就业和创业、电子商务专业前沿研究与应用、电子商务专业在国外。通过四次讲座让学生全方位了解本专业。

Course description: This course is an introductory course for students majoring in e-commerce. This course is divided into four topics, each subject has 2 hours, respectively, e-commerce professional training objectives and training programs, e-commerce professional employment and entrepreneurship, e-commerce professional cutting-edge research and applications, e-commerce professionals in foreign countries. Through the four lectures ,the students would be understanding the major in all directions.

编 码: BA01001(02)**Code:**BA01001(02)**课程名称:** 专业导论课**Course Title:**Program Introduction**课程类别:** 专业核心**Course category:**Required Core Course**学 分:** 0+(1)**Credit(s):**0+(1)**开课单位:** 工商管理学院**Offering College/School:**College of Business Administration

课程描述: 本课程是经济、金融、保险、管理等专业的基础课程，共有四篇：金融概览、金融机构、金融市场与风险管理、金融调控与金融监管；内容主要包括货币、利率、汇率、中央银行、商业银行、金融市场、金融工程、货币供给与需求、货币政策、通货膨胀、金融监管等。通过本课程学习，学生能系统掌握货币、信用、银行的基本原理和基本理论；了解市场经济条件下货币、信用、银行及现代金融的特点与发展趋势；掌握有关金融行业的基本知识和基本技能；了解如何运用货币政策工具对宏观经济进行调控。

Course description: This course is a basic course in economics, finance, insurance, management, etc. It's divided into four chapters: financial overview, financial institutions, financial markets and risk management, financial control and financial supervision. The main contents include currency, interest rates, exchange rates, the central bank, commercial bank, financial markets, financial engineering, the money supply and demand, monetary policy, inflation, financial supervision, etc. Through the studying of this course, students can systematically master the basic principles and theories of currency, credit and banking. Moreover, they can understand the characteristics and development trends of currency, credit, bank and modern finance in the market economy. Finally, they can have a better mastering the basic knowledge related to the financial sector and understanding how to realize macroeconomic regulation with monetary policy tools.

编 码: BA01001(02)**Code:**BA01001(02)**课程名称:** 专业导论课**Course Title:**Program Introduction**课程类别:** 专业核心**Course category:**Required Core Course**学 分:** 0+(1)**Credit(s):**0+(1)**开课单位:** 工商管理学院**Offering College/School:**College of Business Administration

课程描述: 本课程是会计专业的专业核心课程,以《基础会计学》、《财务管理》等为前导课程,为会计专业学生在了解会计专业的目标性质,明确学习方向 and 我们的培养特色方面奠定基础。

本课程主要包括会计的工作内容、会计的目标、实现目标的手段和我校会计专业的培养特色等内容,学生需了解会计学在经济社会中的地位和意义,理解我校会计专业的培养特色,掌握会计目标和性,并能结合所学知识来更好地规划自己的未来学习计划和职业生涯。通过学习本课程,学生学会自我定位和专业发展定位,提升其对会计职能和自身发展定位的理解,明确自己的学习规划和未来职业规划。

Course description: This course is a core course of the accounting profession, with < Basic Accounting >, < < Financial Management > > as preceding courses. It lays the foundation for the accounting professional students to understand the goal and nature of accounting profession to facilitate the students well perceive the direction of learning and our training characteristic aspect.

The contents of this course mainly includes the accounting work, accounting objectives to achieve and our accounting professional training characteristics etc.. Students are required to understand accounting in the economic and social status. We expect students understand our accounting professional training, master accounting objectives and, and combined with the knowledge to better plan their future and career. After studying of this course, students are expected to enhance their understanding of the accounting functions and their own development orientation, helping their own learning plans and future career planning.

编 码: BA01001(02)**Code:**BA01001(02)**课程名称:** 专业导论课**Course Title:**Program Introduction**课程类别:** 专业核心**Course category:**Required Core Course**学 分:** 0+(1)**Credit(s):**0+(1)**开课单位:** 工商管理学院**Offering College/School:**College of Business Administration

课程描述: 本课程为市场营销专业的前导性课程, 对学生了解自己所学专业的背景、课程设置、毕业生能力和素质要求及未来工作去向起到引导性作用, 引导学生逐步了解市场营销专业并树立牢固的专业思想、确立自己的学习目标和努力方向。

Course description: This course is the leading course of the marketing profession, the students understand their own professional background, curriculum setting, Graduate ability and quality requirements and future work to play a guiding role, guide students to gradually understand the marketing professional and establish a strong professional thinking, to establish their own learning goals and efforts.



编 码: BA01001(02)	Code: BA01001(02)
课程名称: 专业导论课	Course Title: Program Introduction
课程类别: 专业核心	Course category: Required Core Course
学 分: 0+(1)	Credit(s): 0+(1)
开课单位: 工商管理学院	Offering College/School: College of Business Administration
课程描述: 本课程是信息管理与信息系统专业的专业核心课程, 为学生选专业和将来的专业发展提供指导和帮助。	

本课程主要包括信息管理与信息系统专业的特色、专业建设情况、培养目标、学科定位、教学规划、就业情况、能力素质培养、如何增强就业竞争力等内容。学生需了解整个管理学科中各专业的特点及相互之间关系, 理解信息管理与信息系统的含义, 对信息管理与信息系统专业的课程体系和就业方向有一个比较明确的认识。通过学习本课程, 使学生不仅在选专业时能够明确目标, 而且将来就读本专业时能明确发展方向。

Course description: This course is a core course for the information management and information system, which provides guidance and help for students to choose professional and professional development in the future.

This course mainly includes information management and information system specialty, specialty construction, training objectives, subject orientation, teaching plan, employment situation, ability training, how to enhance the competitiveness of employment and so on. Students need to understand the characteristics of the entire management disciplines and their relationship with each other, understand the meaning of information management and information system, the system of information management and information system professional course system and employment direction has a relatively clear understanding. By learning this course, students not only in the selection of professional can clear objectives and future readers of professional can clear the direction of development.

编 码: BA04020**Code:**BA04020**课程名称:** 财务管理学**Course Title:**Financial management**课程类别:** 学类核心**Course category:**Major Survey Course**学 分:** 3**Credit(s):**3**开课单位:** 工商管理学院**Offering College/School:**College of Business Administration

课程描述: 财务管理学既是经济管理类学生的平台课程,也是财务管理和会计专业的核心课程,该课程以基础会计学、金融学为前导课程,并为高级财务管理、投资学等课程的学习奠定基础。

本课程包括资金的时间价值、融资决策、投资决策和股利分配四个部分,学生需了解企业财务管理目标的演进及其在企业间的差异,理解资金时间价值的内涵及应用,掌握企业投融资与股利分配决策的方法与影响因素,并能灵活运用财务管理理论与方法为企业设计合理的融资方案,选择有价值的投资项目,并进行有效的股利分配。通过该课程的教学,使学生掌握财务决策的基本理论与方法,结合案例讲解和实践问题的解决,锻炼和提升学生如何根据企业的实际情况和其所处的经济环境进行合理的财务决策的能力。

Course description: Financial management is not only a course for all students major in economics and management, but also a required course for students major in financial management and accounting. Fundamental accounting and finance are the precursor of this course. In turn, this course works as the basic for advanced financial management and investment.

This course covers four parts, time value of money, financing decisions, investment decisions, and dividend allocation. By taking this course, students are expected to understand the evolution of the objectives of corporate financial management and its difference among different types of firms, the connotation of time value of money and the application of this theory, to grasp the techniques and influential factors of financing and investment decisions. Finally, students are required to design financing scheme, select valuable investment project for a specific firm under a specific condition. To sum up, this course aims to make student grasp the general theory and methods in financial decisions, to cultivate the financial decision capability based on the actual internal and external environment by case analysis and simulation.

编 码: BA04022**Code:**BA04022**课程名称:** 管理学**Course Title:**Management**课程类别:** 学类核心**Course category:**Major Survey Course**学 分:** 3**Credit(s):**3**开课单位:** 工商管理学院**Offering College/School:**College of Business Administration

课程描述: 《管理学》是管理类、经济类专业的核心专业基础课程；同时也是工商管理学院面向全校各专业开设的公共通识教育平台课程，学科具有综合性特点，对于全校各专业学生的通识教育基础和综合素质培养，以及经、管、文类各专业学生的后续专业教育影响重大。课程教学的总体目标是：教授并让学生系统学习和比较全面地掌握管理与管理学的基本原理、基本方法和一般规律，培养学生基本的管理素质和管理绩效观，为构建学生全面知识结构及其后续的专业方向课程学习打下良好基础。基本教学模块包括：导论、计划与决策、组织与变革、领导与激励、控制与质量。

Course description: Management is a core foundation course for students in management and economics majors and a general education course for all other students in Hunan University provided by the School of Business Administration, and it is comprehensive, which has an important influence for general education foundation, talent quality and following professional study of our students. The goal of the course is systematically teaching the student about the basic principle, method and general rule of management science; raising basic management quality and the managerial perform view for the student; as well as constructing good base for comprehensive knowledge structure and the following major curriculum study of our students. Basic teaching models of management include introduction, planning & decision-making, organization & reform, leadership & incentive, as well as control & quality.

编 码: BA04023**Code:**BA04023**课程名称:** 会计学原理**Course Title:**Accounting Principle**课程类别:** 学类核心**Course category:**Major Survey Course**学 分:** 3**Credit(s):**3**开课单位:** 工商管理学院**Offering College/School:**College of Business Administration

课程描述: 这是一门为全校经管类学生开设的专业基础课,为进一步学习相关后续专业课程(如财务会计、成本会计、财务管理、管理会计、审计等)打下必不可少的基础。

本课程主要内容为财务会计的基本方法和基本原理,具体包括:设置账户、复式记账、填制和审核凭证、登记账簿、成本计算、财产清查、编制会计报表等。

本课程通过理论和实践教学,使学生能够掌握会计学的基本概念、基本理论和基本操作技能,培养学生分析问题、概括问题的能力,具有比较熟练的运用会计符号和语言反映经济业务的能力,对实务中企业披露的信息能够理解和利用。

Course description: This is a basic accounting course for finance,economics and management majors who are supposed to have no priority of Accounting-related knowledge.This course builds a foundation for the studying of subsequent major courses, such as financial accounting, cost accounting, financial management, managerial accounting.

The course mainly includes basic methods and basic principles of financial accounting. To be specific, it mainly includes accounts, double-entry accounting, recording and checking the business documents and journals, transactions posted to ledgers, cost computing, property checking, and preparing of financial statements.

After teaching this course, it can help students master the basic concepts, basic theories and basic operation techniques of accounting. Through the whole teaching process of fundamental accounting, it can develop students with the ability of analyzing and summarizing the problem of accounting theory and accounting practice, using accounting language to reflect the business transactions, and it can help students to understand and use the accounting information disclosed by the enterprises.

编 码: BA04026

Code:BA04026

课程名称: 市场营销学

Course Title:Marketing

课程类别: 学类核心

Course category:Major Survey Course

学 分: 3

Credit(s):3

开课单位: 工商管理学院

Offering College/School:College of Business Administration

课程描述: 《市场营销学》是工商管理学科类核心课程。主要内容有: 市场营销管理哲学, 市场购买行为分析, 目标市场营销战略, 竞争性市场营销战略, 产品策略, 价格策略, 渠道策略, 促销策略。本课程的先修课程为《管理学》。

Course description: Marketing is the core curriculum of Business Management. The main contents are marketing management philosophy, market buying behavior analysis, target marketing strategy, competitive marketing strategy, product strategy, price strategy, channel strategy and promotion strategy. The prerequisite of this course is Management.



编 码: BA04026(BA04035)

Code:BA04026(BA04035)

课程名称: 市场营销学

Course Title:Marketing

课程类别: 学类核心

Course category:Major Survey Course

学 分: 3

Credit(s):3

开课单位: 工商管理学院

Offering College/School:College of Business Administration

课程描述: 《市场营销学》是工商管理学科类核心课程。主要内容有: 市场营销管理哲学, 市场购买行为分析, 目标市场营销战略, 竞争性市场营销战略, 产品策略, 价格策略, 渠道策略, 促销策略。本课程的先修课程为《管理学》。

Course description: Marketing is the core curriculum of Business Management. The main contents are marketing management philosophy, market buying behavior analysis, target marketing strategy, competitive marketing strategy, product strategy, price strategy, channel strategy and promotion strategy. The prerequisite of this course is Management.



编 码: BA04027**Code:**BA04027**课程名称:** 数据库原理与应用**Course Title:**Database Principle and Application**课程类别:** 学类核心**Course category:**Major Survey Course**学 分:** 3**Credit(s):**3**开课单位:** 工商管理学院**Offering College/School:**College of Business Administration

课程描述: 数据库原理与应用是为信息管理专业学生开设的专业基础课, 通过该课程的教学使学生能够掌握数据库的基本概念、基本理论、基本方法和基本操作技能; 通过研究关系代数、关系演算、函数依赖、多值依赖, 关系模式的分解, 关系模式的规范化让学生建立扎实的关系数据库理论基础; 通过数据库原理与应用的整个教学过程逐渐培养学生分析问题、解决问题的能力, 为就业搭建基本起步平台; 主要内容为数据库的基本方法和基本原理, 具体包括: 数据库设计基础、数据与数据运算、数据库与表、查询与视图、关系数据库标准语言 SQL、程序设计等。

Course description: This is a basic course for majors of the Information Management students, aiming at the student's mastery of the basic concepts, basic theory, basic methods and basic skills in the Database. Through the research of relation algebra, relational calculus, functional dependency, multi valued dependency, the decomposition of relational schema, normalized relational schema allows students to a relational database is a solid theoretical foundation; The study of this course develops the student's ability to analyze issues, solve problems,so as to build a platform for their future careers. The main contents of this course are the basic approaches and principles of Database, specifically including: basic knowledge of database design data and data operations, database table, query and view,the relational database standard language SQL, and program design.

编 码: BA04030**Code:**BA04030**课程名称:** 运筹学**Course Title:**Operations Research**课程类别:** 学类核心**Course category:**Major Survey Course**学 分:** 3**Credit(s):**3**开课单位:** 工商管理学院**Offering College/School:**College of Business Administration

课程描述: 运筹学是工商管理学院各专业的学类核心课。该课程以高等数学、线性代数和概率统计为前导课程,应用现有的科学技术知识和数学方法,解决实际中提出的专门问题,为决策者选择最优决策提供定量依据。运筹学理论与方法的应用几乎遍及所有科学技术领域和国民经济的各个部门。本课程主要包括线性规划、整数规划、动态规划、图与网络分析、排队论、存贮论、单目标决策等。通过本课程的学习,使学生掌握运筹学的基本概念、基本理论及主要算法,学会如何应用运筹学中的数量方法与模型来分析研究现代企业生产与技术管理以及经营管理决策问题,培养学生运用运筹学的方法去分析和解决实际问题的能力。

Course description: Operational research is the core course of the major of Business Administration Institute.. The curriculum in higher mathematics, linear algebra and probability and statistics for leading courses, the application of existing knowledge of science and technology and mathematical methods, to solve the special problems in the practical, for decision makers to choose optimal decision-making provide quantitative basis. The application of operational research theory and method is almost all the fields of science and technology and the departments of national economy.. The main contents of this course include linear programming, integer programming, dynamic programming, graph and network analysis, queuing theory, inventory theory, single objective decision, etc.. Through the course of learning, to enable students to master tacticians of basic concepts, basic theory and main algorithms and learn how to apply operations research in quantitative methods and models to analyze the modern enterprise production and technology management and management decision problem, training students to use the operational methods to analyze and solve practical problems.

编 码: BA04031**Code:**BA04031**课程名称:** 运营管理**Course Title:**Operations Management**课程类别:** 学类核心**Course category:**Major Survey Course**学 分:** 3**Credit(s):**3**开课单位:** 工商管理学院**Offering College/School:**College of Business Administration

课程描述: 运营管理是一门平衡供需的学问,研究如何以最有效的方式创造或提供客户所需要的产品或服务,以实现客户价值最大化。它以管理学、管理经济学为理论基础,以数理统计方法、运筹学方法、计算机信息处理等为手段,对运营系统进行设计、计划、组织、维护与改进,目的在于提高运营系统的运行效率、降低运行成本,按质、按量、按时创造或提供客户所需产品或服务。

Course description: Operations management is knowledge of balancing supply-demand, which is the study of how to use the most effective way to create or provide customers required goods or services to realize maximum value of customers. It based on the theories of management science and managerial economics, with methods of mathematical statistics, operations research, and computer information processing as the means to design, planning, organization, maintenance and improvement the operation system. Operations management aims at improving the operation efficiency of the operation system and reducing the operational cost, and thus to create or provide the needed products or services on required quality, quantity and schedule.

编 码: BA04032**Code:**BA04032**课程名称:** 组织行为学**Course Title:**Organizational Behavior**课程类别:** 学类核心**Course category:**Major Survey Course**学 分:** 3**Credit(s):**3**开课单位:** 工商管理学院**Offering College/School:**College of Business Administration

课程描述: 组织行为学是工商管理类本科专业一门重要的学类核心课程。本课程主要介绍组织行为理论和方法,包括个体、群体、组织对组织内部行为的影响,并解释如何使组织的沟通有效,解决组织冲突,完善组织变革,并利用这些知识来提高组织绩效。本课程将解决的是组织行为中的关键问题,包括个体行为基础、态度和工作满意度、人格与价值观、知觉和个人决策、激励理论与应用、工作群体与团队管理、组织沟通、组织冲突、组织结构优化设计,组织变革和工作压力管理。学生在课堂上会有很多有趣的案例用以学习和讨论,完成情景模拟并参与角色扮演。基于真实的案例进行分析和讨论,有助于学生拓宽视野、用所学知识解决组织管理中的实际问题。该课程可以帮助学生建立以人为本的管理理念,了解个人、团体和组织的行为模式,主要掌握关于人格、认知、动机、激励、组织沟通、组织冲突、组织变革和发展,以提高团队绩效和组织效率。要求学生积极参与课堂学习和课后实践,从实际出发,提高心理素质、团队精神以及分析和解决实际问题的能力。

Course description: Organizational Behavior is a core curriculum for students of majoring business administration. This course mainly introduces the organizational behavior theory and methods, including the effects of individual, group, organization of organization behavior, and explains how to organize effective communication, solve the conflict of organization, perfecting the organization change, and use this knowledge to improve organizational performance. This course will address is the key problem of organizational behavior, including the basis of individual behaviors, attitudes and job satisfaction, personality and values, perception and individual decision, incentive theory and application, group work and team management, organizational communication, organizational conflict, organizational structure optimization design, organizational change and job stress management. Students will have a lot of interesting case for study and discussion in this course. Based on the real case analysis and discussion, teacher helps students to broaden their horizons, to solve practical problems in organizational management with knowledge. This course can help students to establish a people-oriented management concept, understanding the individual, group and organizational behavior, to grasp the main personality, cognition, motivation, about motivation, organizational communication, organizational conflict, organizational change and development, in order to improve team performance and efficiency of the organization. Students should actively participate in classroom learning and after class practice, from a practical point of view, to improve the psychological quality, team spirit and ability to analyze and solve practical problems.

编 码: BA04033**Code:**BA04033**课程名称:** 基础会计学**Course Title:**Basic Accounting**课程类别:** 学类核心**Course category:**Major Survey Course**学 分:** 3**Credit(s):**3**开课单位:** 工商管理学院**Offering College/School:**College of Business Administration

课程描述: 这是一门为全校经管类学生开设的专业基础课。主要内容为财务会计的基本方法和基本原理,具体包括:设置账户、复式记账、填制和审核凭证、登记账簿、成本计算、财产清查、编制会计报表等。

通过理论和实践教学,使学生能够掌握会计学的基本概念、基本理论和基本操作技能,为进一步学习相关后续专业课程(如财务会计、成本会计、财务管理、管理会计、审计等)打下必不可少的基础。通过教学,培养学生分析问题、概括问题的能力,具有比较熟练的运用会计符号和语言反映经济业务的能力,对实务中企业披露的信息能够理解和利用。

Course description: This is a basic accounting course for finance,economics and management majors who are supposed to have no priority of Accounting -related knowledge. The course mainly includes basic methods and basic principles of financial accounting. To be specific, it mainly includes accounts, double-entry accounting, recording and checking the business documents and journals, transactions posted to ledgers, cost computing, property checking, and preparing of financial statements.

After teaching this course, it can help students master the basic concepts, basic theories and basic operation techniques of accounting, and build a foundation for the studying of subsequent major courses, such as financial accounting, cost accounting, financial management, managerial accounting. Through the whole teaching process of fundamental accounting, it can develop students with the ability of analyzing and summarizing the problem of accounting theory and accounting practice, using accounting language to reflect the business transactions, and it can help students to understand and use the accounting information disclosed by the enterprises.

编 码: BA04037**Code:**BA04037**课程名称:** 管理信息系统**Course Title:**Management Information System**课程类别:** 学类核心**Course category:**Major Survey Course**学 分:** 3**Credit(s):**3**开课单位:** 工商管理学院**Offering College/School:**College of Business Administration

课程描述: 本课程是管理类多个专业的专业基础课,以管理学、数学和计算机技术基础为先导,为信息系统开发案例和系统分析与设计等课程的学习提供基础。课程内容由基本概念与技术、系统开发过程与管理、系统应用三部分组成。学生需要了解管理信息系统的功能和作用,熟悉信息系统的开发要点和应用问题,掌握基本概念与知识结构。通过学习本课程,学生能够获得开发管理信息系统和在管理中应用计算机的初步能力;在了解信息系统主要应用在管理的哪些方面的基础上,知道如何根据管理需要,向系统开发人员提出设计要求,并配合他们建立信息系统,为管理决策服务。

Course description: This course is the management classes multiple professional basic courses. It is based on management science, mathematics and computer technology, and provides the basis in the course of the study for development case of information systems, systems analysis and design, and so on. The curriculum content consists of three parts: the basic concepts and techniques, the processes and management of systems development, and system application. Students need to understand the function and role of management information systems, familiar with the development and application of information systems elements, master the basic concepts and knowledge structures. Through this course, students are able to obtain the initial capacity on development of management information systems and computer applications; on the basis of understanding of information systems which are used in what aspects of management, students to know how to propose design requirements to system developers according to the management needs, coordinate with them to establish information systems for management decision-making.

编 码: BA05080**Code:**BA05080**课程名称:** 企业理论**Course Title:**Enterprise Theory**课程类别:** 专业核心**Course category:**Required Core Course**学 分:** 3**Credit(s):**3**开课单位:** 工商管理学院**Offering College/School:**College of Business Administration

课程描述: 本课程是工商管理专业核心课程,以微观经济学、管理学为前导课程,为战略管理、人力资源管理课程学习提供支撑。本课程主要包括企业发展史、交易费用理论、产权理论、委托代理理论、公司治理理论、企业能力理论、企业家理论等内容。学生需理解并掌握企业——作为一种当今社会最重要的经济形态,其本质特征与基本运行规律,以及推动企业发展变化的核心动力所在。通过学习本门课程,学生掌握分析企业经济行为的主要视角和工具,获得综合运用相关理论分析企业发展中所面临的各种突出问题的能力。

Course description: This is a specialization core course. Microeconomics and Management are prerequisites. This course also lays foundation for Strategic Management and Human Resource Management. Main content includes the history of firm development, transaction cost theory, property rights theory, principal-agent theory, corporate governance theory, dynamic capability theory, and entrepreneurship theory. Students need to understand the essential characteristic of firm nature and the driving forces for firm development. By studying this course, students will be able to master the main perspectives and tools for analyzing major economic behaviors of firms and gain skills to use them combinedly.

编 码: BA05081**Code:**BA05081**课程名称:** 企业战略管理**Course Title:**Strategic Management**课程类别:** 专业核心**Course category:**Required Core Course**学 分:** 3**Credit(s):**3**开课单位:** 工商管理学院**Offering College/School:**College of Business Administration

课程描述: 企业战略管理是工商管理专业的核心课程。是帮助管理者在‘正确的做事’的基础上,能够选择‘做正确的事’。企业战略管理是对企业长远生存和发展的总体谋划。通过本课程学习,学生可以掌握企业战略管理理论发展的主要脉络、战略管理分析的主要方法和工具,具备基本的战略管理分析能力。

Course description: Strategy management of corporate is a core course in the major of business management. It is helpful for managers who are right to treat with the businesses to make a right decision. Strategy management of corporate is a future and developed program. By learning this course, the students can master the main steins of corporate management, key analysis methods and tools of strategy. And this course pushes the basic ability of strategic management analysis.

编 码: BA05082**Code:**BA05082**课程名称:** 人力资源管理(S)**Course Title:**Human Resource Management (S)**课程类别:** 专业核心**Course category:**Required Core Course**学 分:** 3**Credit(s):**3**开课单位:** 工商管理学院**Offering College/School:**College of Business Administration

课程描述: 本课程是工商管理专业的专业核心课程,以管理学、组织行为学为前导课程,为人力资源方向的其他专业课程提供基础。本课程主要包括全球化商务环境中的人力资源管理、人力资源战略与规划、工作分析、人力资源招募、任用、培训、考核、报酬、激励、劳动关系管理等内容。学生需理解人力资源管理的战略性地位和人力资源管理体系的主要构成,掌握人力资源管理的各种方法和工具,并能灵活运用这些方法和工具解决相关实践性问题。通过学习本课程,学生学会从战略的角度思考企业人力资源管理问题,获得对实践中的人力资源管理问题进行系统性分析和解决的能力。

Course description: This course is a specialization core course. Management and Organization Behavior are prerequisites. It lays the foundation for other advanced courses in the human resource management areas. Main content includes the human resource management in an international business environment, strategic planning of HRM, job analysis, recruitment, placement, training, performance appraisal, remuneration, and employee relations. Students need to understand the strategic position of HRM and its systematic composition, master various kinds of HRM methods and tools, and apply them into solving practical problems. By studying this course, students will be able to conceptualize HRM problems strategically and gain skills for systematic solution of HRM problems in practice.

编 码: BA05083	Code: BA05083
课程名称: 绩效与薪酬管理(S)	Course Title: Performance and Compensation Management (S)
课程类别: 专业核心	Course category: Required Core Course
学 分: 3	Credit(s): 3
开课单位: 工商管理学院	Offering College/School: College of Business Administration

课程描述: 绩效与薪酬管理是一门系统地研究组织内员工绩效评估与薪酬设计、管理的理论与方法的科学。本课程以人力资源管理理论为基础,重点探讨企业绩效评估的理念、评估方法、评估制度以及薪酬设计的原则与方法、工资制度、薪酬控制与调整等问题。

Course description: The course of performance appraisal and compensation management pertains to delivering a systematic thinking about performance evaluation and payment framework design. Based on relevant HRM theories, this course covers performance management foundation theories, assessment approaches, payment design approaches, salary motivation mechanism, and compensation controlling and adjustment issues. Students attending this course should be familiar with theoretical and practical knowledge, analysis and problem-solving skills, and performance and compensation system design competencies.

编 码: BA05084

Code:BA05084

课程名称: 劳动关系管理

Course Title:Labor Relations Management

课程类别: 专业核心

Course category:Required Core Course

学 分: 3

Credit(s):3

开课单位: 工商管理学院

Offering College/School:College of Business Administration

课程描述: 通过学习企业劳动关系这门课程, 学生能够掌握企业劳动关系管理的基本理论和研究框架, 全面掌握劳动合同法, 掌握企业劳动合同管理和劳动争议管理, 了解集体谈判管理和集体合同管理及工会的职能结构。

本课程要求学生不仅要注重基本理论与知识的理解, 还要善于将理论与实践紧密结合, 要运用所学知识分析我国目前企业劳动关系管理的实务。

Course description: Through learning the course of labor relations management, the students can master the basic theory and research framework of the management of labor relations in enterprises, to fully grasp the Labor Contract Law, and master the management of labor contract and labor dispute, to understand management of collective bargaining and the management of collective contract and union functional structure.

This course requires students to not only focus on the basic theory and knowledge, but also well at the close integration of theory and practice, to apply the knowledge to analyze business practices of our current labor relations management.

编 码: BA05085

Code:BA05085

课程名称: 管理沟通

Course Title:Management Negotiation

课程类别: 专业核心

Course category:Required Core Course

学 分: 3

Credit(s):3

开课单位: 工商管理学院

Offering College/School:College of Business Administration

课程描述: 中文: 管理沟通课程是工商管理专业的专业核心课, 它培养学生良好的沟通意识; 使之掌握组织内部沟通、外部沟通等沟通规律和技巧, 形成良好的沟通理念; 学习人际沟通基本知识, 掌握人际沟通的心理规律; 学习说写读听沟通等沟通技能, 提高个人沟通能力。

Course description: Communication for Management is basic course of business management. It trains students' communication consciousness, mastering the rules and skills of intra-organizational and extra-organizational communication, forming a good idea of communication, learning the basic knowledge of interpersonal communication, grasping the psychological laws of interpersonal communication, learning skills of speaking, writing, reading and listening; to improve their personal communication ability.

编 码: BA05086**Code:**BA05086**课程名称:** 人员测评管理**Course Title:**Personnel Measuring**课程类别:** 专业核心**Course category:**Required Core Course**学 分:** 3**Credit(s):**3**开课单位:** 工商管理学院**Offering College/School:**College of Business Administration

课程描述: 本课程系统地讲述人员测评常用方法和内容, 主要包括常用测评技巧、情景式综合测评方法以及人格特质、职业兴趣、工作动力、能力等的测试方法与意义。本课程帮助学生系统理解和掌握人员甄选的科学方法和工具, 能为企业招聘并选拔出适合岗位特征和本企业文化的员工; 同时也使学生更多地了解和认识自己, 了解企业招聘选拔的程序和方法, 以提高应聘成功率。

Course description: This course deals with common methods and content about personnel assessment, including common assessment techniques, scenario-based comprehensive evaluation methods, test methods and significance of personality trait, vocational interest, motivation and ability. It helps students understand and master scientific methods and tools for the personnel selection, and helps enterprises recruit and select suitable employees who match job characteristics and corporate culture. Besides, the course makes students learn more about themselves and understand enterprises recruitment and selection procedures, improving the success rate of application.

编 码: BA05087**Code:**BA05087**课程名称:** 创业管理**Course Title:**Entrepreneurial Management**课程类别:** 专业核心**Course category:**Required Core Course**学 分:** 3**Credit(s):**3**开课单位:** 工商管理学院**Offering College/School:**College of Business Administration

课程描述: 这是一门为工商管理专业学生开设的专业选修课,通过该课程的教学使学生能够掌握创业学的基本概念、基本理论和基本操作技能,为学生学习相关后续专业课程,如战略管理、公司内创业等,打下必不可少的基础;通过创业管理的整个教学过程逐渐培养学生分析问题、概括问题的能力,培养学生具有比较熟练的创业能力,对实务中出现的问题能予以理解和解决;主要内容为创业的基本过程和重大课题,具体包括:创业机会识别、创业计划书、创业融资渠道与技巧、产品营销方法、新创企业和新创业业务的成长管理、快速发展时期的风险防范,公司创业(以“内创业”为主)等。

Course description: This is a selective course for majors of business management, aiming at the students' mastery of the basic concepts and theories of entrepreneurship and the development of their operation techniques in entrepreneurial practice, thus laying a solid foundation for their study of follow-up courses such as strategic management, corporate entrepreneurship management. The study of this course motivates the students to have a strong entrepreneurial inclination, develops the students' ability to analyze and solve practical problems, and develops the students' skills to establish a viable business venture. The main contents of this course are as the following:

- * Models for writing a clear and convincing business plan.
- * Techniques for targeting, evaluating, and obtaining alternate sources of financing
- * Methods for inexpensively creating demand for products and services

Entrepreneurial Management details the tactical and strategic issues that are essential to starting a new business, from spotting the right opportunity to raising capital, enhancing productivity, building customer loyalty, and growth and risk management.

编 码: BA05088(BA05108)**Code:**BA05088(BA05108)**课程名称:** 消费者行为学**Course Title:**Consumer Behavior**课程类别:** 专业核心**Course category:**Required Core Course**学 分:** 3**Credit(s):**3**开课单位:** 工商管理学院**Offering College/School:**College of Business Administration

课程描述: 消费者行为学课程是为市场营销专业本科或专科开设的一门必修专业课。理论教学 48 学时。它是研究消费者个体, 群体挑选, 获取产品, 服务与体验来满足需求的过程, 以及这一过程对消费者及社会影响的课程。消费者行为学涉及心理学, 社会心理学, 社会人类学等学科, 帮助学生理解消费者的决策过程, 消费者个体与群体特征对消费的影响。

Course description: Consumer behavior is the study of individuals, groups and the processes they use to select, secure, and dispose of products, services, experiences, or ideas to satisfy needs and the impacts that these processes have on the consumer and society.[1] It blends elements from psychology, sociology, social anthropology and economics. It attempts to understand the decision-making processes of buyers, both individually and in groups. It studies characteristics of individual consumers such as demographics and behavioral variables in an attempt to understand people's wants. It also tries to assess influences on the consumer from groups such as family, friends, reference groups, and society in general.

编 码: BA05089(BA05109)**Code:**BA05089(BA05109)**课程名称:** 市场调研**Course Title:**Marketing Research**课程类别:** 专业核心**Course category:**Required Core Course**学 分:** 3**Credit(s):**3**开课单位:** 工商管理学院**Offering College/School:**College of Business Administration

课程描述: 市场调研是一门市场营销专业课程。它主要研究定义企业营销问题、确定调研目标、设计调研方案、运用第一手资料和第二手资料、定性调研和定量调研、调查数据的收集方法、调研问卷的设计、样本计划和样本容量的确定、数据的收集和处理分析以及调研报告的编写。通过本课程的教学,可以使学生理解和掌握市场调研这一减少企业营销决策风险的工具,为学生今后的营销职业生涯打下良好的基础。本门课程的目的是使学生熟悉营销调研术语,理解如何操作与指导市场调研,以解决营销活动过程中的问题。通过学习领会营销调研在营销决策制定过程中的作用,并理解营销调研在企业营销活动中的价值。通过完成个人作业,小组口头展示,展示研究报告,参与小组活动等形式提高营销调研的实践能力。

Course description: Marketing Research is an important course of quantitative analysis in marketing area. To train high quality, international, innovation, and implicative students in marketing area, this course will adopt teaching, case analysis, and panel discussion and will combine teaching and implication. The objective of this course is to define marketing problems, determine research objectives, design research plan, use primarily and secondary data, set qualitative and quantitative research, investigate data collection method, design questionnaire, make sampling plan, analyze data, and implement research report. After studying this course, students could use marketing research tools to decrease decision risk in management process. The course will let students use marketing research to guide marketing issues in their marketing activities. Through individual work, team work, report presentation, team activities participation, students could increase their implication abilities in marketing research.

编 码: BA05090(BA05110)

Code:BA05090(BA05110)

课程名称: 产品与品牌管理

Course Title:Product and Brand Management

课程类别: 专业核心

Course category:Required Core Course

学 分: 3

Credit(s):3

开课单位: 工商管理学院

Offering College/School:College of Business Administration

课程描述: 本课程涵盖了产品战略决策和市场选择的理论知识并将战略计划框架与产品品牌发展融合起来。

Course description: This course covers the strategic decisions for product and market selections and an examination of the role of innovation in attaining the firm's objectives.



编 码: BA05091(BA05111)**Code:**BA05091(BA05111)**课程名称:** 定价决策**Course Title:**Pricing**课程类别:** 专业核心**Course category:**Required Core Course**学 分:** 3**Credit(s):**3**开课单位:** 工商管理学院**Offering College/School:**College of Business Administration

课程描述: 定价是管理学中的一个重要课题, 原因在于它是打开盈利性成长机会大门的钥匙。尽管各公司投入了大量的时间和资本来改善定价, 但面临全球性竞争、复杂的集团采购和缩短了的产品周期, 要实现从战术性定价到战略性定价的转变相当困难。定价是营销组合中唯一不增加成本而能产生收入的因素, 也是最为灵活的因素, 它直接关系到市场对产品的接受程度, 影响着市场需求量, 即产品销售量的大小和企业利润的多少。本课程将带领大家跳出了传统的定价思维, 将定价从简单的销售决策提升成为企业战略的重要元素, 并将其融入商业模式、营销策略及组织能力等各个方面, 成为利润增长的主要驱动因素。本课程包含价格战略的设计及扩展 GABORGRANGER 法、价格敏感度测试, 品牌与价格交替选择模型、联合分析法和选择模型法等价格决策模型, 全面培养学生在营销价格确定的分析、设计方面的能力, 使得学生理解价格杠杆作用, 并学会应用 SPSS 等高级分析工具对价格进行研究决策, 破解价格密码, 挖掘隐藏利润。

Course description: One of the most difficult, yet important, issues you must decide as an entrepreneur is how much to charge for your product or service. While there is no one single right way to determine your pricing strategy, fortunately there are some guidelines that will help you with your decision. Determining the price of a product or service is one of the most important marketing decisions. It is also one of the most complex and least understood aspects of marketing. This course initially surveys some popular pricing practices, explores their pitfalls, and identifies the fallacies they are based on. It then develops a conceptual framework – based on economic foundations – for effective proactive decisions. The course is structured around marketing's three C's: costs, customers and competitors. The first part of the course discusses how costs should and should not enter the pricing decision. It then moves on to show how a marketing focus on the customer provides insights into the pricing decision. Then we discuss how competition impacts on the pricing decision. The course concludes with pricing strategies, tactics and their applications: dynamic pricing over the product life cycle; product line pricing; pricing through the marketing channel; price discrimination; two-part tariffs and nonlinear pricing; price bundling; perceived value pricing; and competitive pricing. The institutional and legal environment and their impact on the firm's pricing decision are also emphasized.

编 码: BA05092(BA05112)

Code:BA05092(BA05112)

课程名称: 营销渠道

Course Title:Marketing Channels

课程类别: 专业核心

Course category:Required Core Course

学 分: 3

Credit(s):3

开课单位: 工商管理学院

Offering College/School:College of Business Administration

课程描述: 本课程帮助学生全面了解市场营销活动中,分销渠道的功能、结构与管理关系;使学生通过充分了解分销渠道的战略设计、控制与管理的过程与方法,掌握营销活动中渠道的运作规律;从而能够应用分销渠道系统,更好地帮助企业组织生产,提供满足消费者需求的服务产出;帮助学生研究和预测各种分销渠道的构建、变革及其发展趋势的能力。

Course description: This course will help students understand the marketing, distribution function, structure and management of channel relationship; to enable students to manipulation strategic design, channel control and management of distribution through the full understanding, grasp the operation regulations of channel marketing activity; using distribution channel system, help enterprises to organize production, provide to meet consumer demand for services; help to enhance the students ability to study and predict various distribution channels construction, reform and development trend.

编 码: BA05093(BA05113)**Code:**BA05093(BA05113)**课程名称:** 整合营销沟通**Course Title:**Integrated marketing communications**课程类别:** 专业核心**Course category:**Required Core Course**学 分:** 3**Credit(s):**3**开课单位:** 工商管理学院**Offering College/School:**College of Business Administration

课程描述: 本课程以马克思主义基本理论为指导,充分考虑到发展社会主义市场经济的现实需要,在借鉴国内整合营销传播领域最新研究成果的基础上,紧密联系中国实际情况和特定市场营销环境,系统阐述整合营销传播的基本概念、原理和方法,旨在培养学生分析问题、解决问题的能力。

整合营销传播是建立在传播学、行为科学和现代管理理论基础上的应用科学,也是管理类专业主干专业课程之一,其主要研究营销传播理论的发展演变,使营销传播在新的价值基础上形成全面整合。

Course description: Following the doctrine of Marxism, this course gives a full consideration to the needs of the development of socialist market economy. On the basis of the latest research result of domestic integrated marketing communication in China, this course also closely link Chinese actual situation and the specific market environment, and systemically describe the basic concept, principle and method. The integrated marketing communication aims at cultivating the ability of students to analyze and solve problems.

Integrated marketing communication is an applied science in the basis of communication, behavior science and modern management theory. It is one of the major professional courses in management class. Its objective is to investigate the development of marketing communication theory, leading to a comprehensive integrated marketing communication on the new value.

编 码: BA05094(BA05114)

Code:BA05094(BA05114)

课程名称: 服务营销

Course Title:Service marketing

课程类别: 专业核心

Course category:Required Core Course

学 分: 3

Credit(s):3

开课单位: 工商管理学院

Offering College/School:College of Business Administration

课程描述: 本课程是为市场营销专业学生开设的专业选修课, 是一门兼具理论性与实用性的前沿学科。课程内容包括了解服务市场、服务产品和顾客, 建立服务营销的 7P 模型, 有效地进行顾客需求管理、收益管理、服务质量管理、顾客关系管理和内部营销等。

Course description: Students are made acquaint with basic definition, theory, strategy and methods of service marketing. And then build up the mind of modern service marketing which would do great favor to their capability of solving services marketing problems. Topics include understanding service market, product and customer services, the 7 p service marketing model, effective customer demand management, revenue management, service quality management, customer relationship management, and internal marketing etc.

编 码: BA05095**Code:**BA05095**课程名称:** 营销策划与案例分析**Course Title:**Marketing Planning and Case Studies**课程类别:** 专业核心**Course category:**Required Core Course**学 分:** 3**Credit(s):**3**开课单位:** 工商管理学院**Offering College/School:**College of Business Administration

课程描述: 本课程旨在让学生理解一般营销管理原则,并在各种现实的业务问题应用。课程主要采用案例教学,学生将会尝试使用各种方法进行分析和决策,并选择最优方案。

本课程的目标如下: 1、学习现代营销的术语。2、战略营销决策的分析,营销实践案例分析。3、在一个交互式的方式下应用这些知识进行模拟实验。

Course description: This course is designed to help you understand general marketing management principles by seeing them applied in a variety of realistic business problems. To that end, our approach to cases is analytical and decision oriented, focused on being managerially relevant. In practically all the cases, you will try to identify and evaluate alternative paths of action, and ultimately choose one.

The objectives for this course are as follows. First, learn terminology, institutions, and programs of modern marketing. Second, strategic analysis of marketing opportunities and communication of marketing decisions will be practiced in case analysis. Third, apply this Knowledge in an interactive marketing simulation for your final project. Fourth, this course prepares you to take advanced marketing courses.

The course is primarily a case course, and it has several lectures that draw on textbook material. The required textbook readings will help you get more from my lecture presentations, and will often be relevant to the cases. They also familiarize you with marketing terminology that is used by companies and some recruiters. Whether or not you pursue marketing as a profession, you are likely to need brushing up on marketing fundamentals throughout your career.

编 码: BA05096**Code:**BA05096**课程名称:** 营销分析学**Course Title:**Marketing Analytics**课程类别:** 专业核心**Course category:**Required Core Course**学 分:** 3**Credit(s):**3**开课单位:** 工商管理学院**Offering College/School:**College of Business Administration

课程描述: 营销分析学（双语）是为国际营销实验班的高年级本科生开设的一门必修课，同时也是面向普通班的一门选修课。本课程旨在通过学习基于数据分析的营销决策技术，让学生掌握营销管理常用统计分析方法，能应用数据与统计技术分析并解决营销问题，初步具备在实际工作中运用数据进行营销决策的能力。

Course description: Marketing Analytics is a required course for senior students in the international class of marketing. This course is designed to discuss marketing management decisions based on data analysis. After this course, students should be familiar with statistical techniques in marketing and capable of using marketing data and statistics to discuss and solve marketing problems in practice.

编 码: BA05097**Code:**BA05097**课程名称:** 电子商务导论**Course Title:**Introduction to E-Commerce**课程类别:** 专业核心**Course category:**Required Core Course**学 分:** 3**Credit(s):**3**开课单位:** 工商管理学院**Offering College/School:**College of Business Administration

课程描述: 从商务和管理的视角,重点阐述电子商务的应用与实施.对技术的介绍简明扼要,将许多技术方面的内容作为附加章节放在网上供读者进一步阅读。强调实践导向,追踪最新的企业电子商务实践.总结了大量真实世界中的案例,展示了电子商务的最新前沿应用。课程特色主题包括礼交网络、电子学习、电子政府、电子策略、电子供应链、协同商务、移动商务等。

Course description: From the perspective of business and management, this course focuses on the theory and implementation of e-business. Introduction of technology is concise and to the point and most of the technical aspects of content are put on the Internet for readers to learn further. This course is practice-oriented. We will track the latest business practice of e-business, and summarize a large number of real world cases to inspire students learn more about E-business. E-learning, electronic government, electronic strategy, electronic supply chain, collaborative commerce, mobile commerce are some of the typical topics in this course.

编 码: BA05098	Code: BA05098
课程名称: 物流与供应链管理(s)	Course Title: Logistics and supply chain management (S)
课程类别: 专业核心	Course category: Required Core Course
学 分: 3	Credit(s): 3
开课单位: 工商管理学院	Offering College/School: College of Business Administration

课程描述: 本课程是电子商务与物流管理专业本科学生的一门专业核心中英文双语课程。随着经济现代化的加速,我国对现代物流技术和装备的需求也会越来越大。社会对既掌握现代物流与供应链管理理论与实务,又具备中英文双语沟通能力的专业人才的需求也与日俱增。该课程的目的是为适应社会发展的需求,让学生在学习了大学英语和部分专业基础课的基础上,学习现代物流与供应链管理的基本概念、基本理论和基本方法,了解国内外现代物流与供应链管理的新发展、新观点和新技术等最新研究成果,为学生进一步学习、研究物流与供应链管理打下很好的基础。

通过双语教学,学生还应该掌握一定量的物流与供应链管理专业英语词汇,了解科技英语的特点,通过练习掌握一定的科技英语翻译技巧,提高英文专业文献的阅读和翻译能力,培养学生主动涉猎国外最新科技信息的能力和主动性。

Course description: This course is a Chinese& English bilingual course of all undergraduate students in the school of business. Along with the acceleration of the economic modernization, there would be increasing demands on modern logistic technology and equipment in China. So, there is an increasing demand on special talents who both grasp the theory and practice on logistics & supply chain management and can communicate in Chinese and English. The goal of this course is to fit in with the needs of the social development. On the base of college English and part of the specialty courses, make the students study the basic concept, principle theories and methods, understand the new developments, new ideas and new technologies, and the newest research achievements. Prepare students for further study and research on Logistics & Supply Chain Management.

Students should also grasp terms on Logistics & Supply Chain Management and understand the characteristics of scientific English. Through exercising, students should master some skills of translation scientific English, improve reading and translation abilities in English. Cultivate students' ability of positively reading foreign country's newest scientific information.

编 码: BA05099**Code:**BA05099**课程名称:** 网络营销学**Course Title:**Internet Marketing**课程类别:** 专业核心**Course category:**Required Core Course**学 分:** 3**Credit(s):**3**开课单位:** 工商管理学院**Offering College/School:**College of Business Administration

课程描述: 网络营销能整体提高企业的营销战略,使企业的影响活动从广告有效性、可查看的营销结果等方面提升到新的阶段。对于产品促销、活动导入、用户反馈、E-mail 营销提供全面的解决方案。

网络营销为企业和广告组织提供易于入手的个性化、有效的策略,使得既有的市场策略能更适应更高市场利润和互动化的市场环境。

网络营销的好处主要体现在:

目标人群:可以使企业更准确地定位人群。

渗透性:通过地理位置参数等实现对人群更准确的营销渗透。

有效性:一键实现对客户各种信息终端的全覆盖。

成本:通过较少的成本来建立一套技术形态。

速度:快速传递营销信息。

本课程提供一套合理的网络营销的知识体系与研究方法,使学员系统掌握网络营销的基本原理和方法,并能运用网络营销的基本工具。

Course description: E-Marketing complements your overall marketing strategy perfectly, and offers your advertising campaigns proven, measurable results that can take your current marketing campaign to the next level. For product promotion, event invitations, query responses and newsletters, Email provides an all-in-one solution.

E-Marketing offers businesses and other advertising organisations with an easily customised, efficient form of marketing to complement existing advertising strategies and close in on the profitable and interactive market.

Benefits of E-Marketing

Target: allows you to target specific recipient groups and reach a defined, engaged audience

Penetration: overcomes geographical parameters that exist with other communication methods

Efficient: messages can be distributed to multiple recipients at one click

Cost: requires minimal investment to set up an appropriate technical system

Speed: messages are delivered straight to the recipients' inboxes, instantly

We offer students a reasonable knowledge system and research methods about E-marketing. It will enable students using the basic principles and tools in their business.

编 码: BA05100**Code:**BA05100**课程名称:** 电子商务运营管理**Course Title:**Operations Management of E-Businesses**课程类别:** 专业核心**Course category:**Required Core Course**学 分:** 3**Credit(s):**3**开课单位:** 工商管理学院**Offering College/School:**College of Business Administration

课程描述: 本课程是电子商务专业的核心课程。课程首先介绍了电子商务运营管理的基本概念、电子商务系统的体系结构和开发运行环境,以及如何实施项目管理,然后分别介绍结构化法、原型法、面向对象法,基于一个完整的案例,详细介绍电子商务系统的系统规划、系统分析、系统设计、系统实施、系统维护与运营、系统推广的完整过程。

Course description: This is a core course for the students studying the Electronic commerce specialties. First introduced basic concept of operational management of electronic commerce 、 system structure and development environment of the electronic commerce systems, and how to implement project management. Then introduced the structured method、 prototyping method、 Object-oriented method. Through a case about the electronic commerce system, introduces the system planning、 system analysis、 system design、 system implementation、 system maintenance and operation、 system promotion.

编 码: BA05101**Code:**BA05101**课程名称:** 电子商务技术基础(.NET) **Course Title:**Introduction to E-Commerce Technology (.NET)**课程类别:** 专业核心**Course category:**Required Core Course**学 分:** 3**Credit(s):**3**开课单位:** 工商管理学院**Offering College/School:**College of Business Administration

课程描述: 本课程是电子商务专业技术类基础课,也可作为信息管理、计算机软件等专业的选修课。主要讲授电子商务网站开发方面的知识,课程面向应用、面向社会需要。通过本门课程的学习,能够掌握目前最新的网站开发技术。

课程结束后希望学生可以掌握 HTML 设计基础,静态页面样式设计中的 CSS 的应用,JavaScript 程序设计基础,ASP.NET 中各种 Web 服务器控件的使用,数据绑定以及动态网页开发的基本技术。在实践技能上能够利用 ASP.NET 技术进行比较深入的动态网页程序设计,并初步了解和掌握大中型网站项目的分析、设计过程。

Course description: This course is a basic course of technology class for e-commerce major, also can be used as an elective course for information management, computer software, and other professional. The Course mainly teaches knowledge of e-commerce Web development. It aims the needs of society and application. Completed study of this course, we can grasp the latest website development technology at present.

We hope the students can master HTML design basis, the static page style in the design of the application of CSS, JavaScript program design basis, the use of various Web server controls in ASP.NET, data binding and the basic dynamic Web development technology. In the aspect of practical skills, to be able to use ASP.NET technology to do advanced dynamic web programming, and to get a preliminary understanding and master the analysis and design process of large and medium-sized web site project.

编 码: BA05102**Code:**BA05102**课程名称:** 项目管理(S)**Course Title:**Project management(S)**课程类别:** 专业核心**Course category:**Required Core Course**学 分:** 3**Credit(s):**3**开课单位:** 工商管理学院**Offering College/School:**College of Business Administration

课程描述: 项目管理是电子商务专业核心课,其前导课程为管理学。项目管理要求项目管理者在有限的资源约束下运用系统的观点、方法和理论,对项目涉及的全部工作进行有效地管理。即从项目的投资决策开始到项目结束的全过程进行计划、组织、指挥、协调、控制和评价,以实现项目的目标。项目管理有成熟的知识体系,从项目过程看,项目管理有五大过程即启动过程、计划过程、实施过程、监控过程、收尾过程,从知识点看,项目管理包括范围管理、时间管理、成本管理、质量管理、人力资源管理、风险管理、采购管理、集成管理九大知识模块。本课程以培养项目经理为目标,职业发展路径对应四个级别的项目管理师职位,有两大国际专业证书 PMP 和 IPMP。项目管理是门应用性很强的课程,在企业管理项目化的今天,具有广阔的发展前途。

Course description: Project Management is the core module of Electronic Commerce. It requires the knowledge of Management Science. Project Management asks project manager efficiently managing all the related works in the use of systematic ideas, methods and theories with limited resources. That is, in order to achieve the goal of project, project manager needs to do planning, organising, directing, coordinating, controlling and commenting from the beginning of investment decision to the end of project. The five main procedure of Project Management are preliminary, planning, executing, monitoring and closing. Project Management consists of nine main modules including scope management, time management, cost management, quality management, human resource management, risk management, procurement management, integration management. The objective of this module is to cultivate project manager. Project manager has four levels in its career path and two international professional certificates PMP and IPMP to acquire. Project Management is a practical module which has broad prospects as enterprises increasingly tend to manage the project.

编 码: BA05103**Code:**BA05103**课程名称:** 商务数据挖掘技术与应用**Course Title:**Data Mining and its Business Applications**课程类别:** 专业核心**Course category:**Required Core Course**学 分:** 3**Credit(s):**3**开课单位:** 工商管理学院**Offering College/School:**College of Business Administration

课程描述: 数据挖掘技术旨在从海量数据中发现潜在的有用信息。随着互联网技术在各种社会活动中的普及和深入,各种终端设备随时随地在生成数据。这些数据以各种各样的形态表达着用户的行为和交互。及时有效地从海量数据中发现各种行为交互模式,可以帮助决策者更加高效地进行商务决策,更好地服务用户。

数据挖掘技术综合了算法设计、统计分析、优化求解等领域的知识,常用的模型和算法包括分类预测、关联挖掘、聚类分析、线性回归、贝叶斯推理等等,典型的应用包括趋势分析、精准营销、推荐系统、倾向性分析、社交网络分析等等。

Course description: Data mining technology aims to discover patterns and relationships in the data in order to help make better business decisions. This course is designed to provide the students with a working knowledge of data mining and business analytics. Particular focus will be on the fundamental statistical properties and analysis of many popular techniques for learning, classification and prediction. The topics covered in this course will include elements of the following: association rules and sequential patterns, classification, clustering, linear regression, Bayesian inference models, etc. Typical applications of data mining techniques include trend analysis, market segmentation, recommendation systems, sentimental analysis, social networking analysis, etc.

编 码: BA05104

Code:BA05104

课程名称: 网络金融学

Course Title:Internet Finance

课程类别: 专业核心

Course category:Required Core Course

学 分: 3

Credit(s):3

开课单位: 工商管理学院

Offering College/School:College of Business Administration

课程描述: 本课程是一门为电子商务专业学生开设的专业课, 全面讲述网络金融领域的理论和实践及其发展, 内容涵盖金融安全技术、电子支付系统, 银行、证券和保险领域的电子商务理论与实践, 以及网络金融领域的监管和法律问题。

Course description: This course is a professional course for students of e-commerce specialty. We will discuss the theory and practice in the field of network financial and its development. The contents include network financial security technology, the electronic payment systems, network banking, network securities and the regulatory and legal issues of e-commerce and network financial .



编 码: BA05105**Code:**BA05105**课程名称:** 金融学**Course Title:**Finance**课程类别:** 专业核心**Course category:**Required Core Course**学 分:** 3**Credit(s):**3**开课单位:** 工商管理学院**Offering College/School:**College of Business Administration

课程描述: 本课程是经济、金融、保险、管理等专业的基础课程，共有四篇：金融概览、金融机构、金融市场与风险管理、金融调控与金融监管；内容主要包括货币、利率、汇率、中央银行、商业银行、金融市场、金融工程、货币供给与需求、货币政策、通货膨胀、金融监管等。通过本课程学习，学生能系统掌握货币、信用、银行的基本原理和基本理论；了解市场经济条件下货币、信用、银行及现代金融的特点与发展趋势；掌握有关金融行业的基本知识和基本技能；了解如何运用货币政策工具对宏观经济进行调控。

Course description: This is a basic course in economics, finance, insurance, management, etc. It's divided into four sections: financial overview, financial institutions, financial markets and risk management, financial control and financial supervision. The main contents include currency, interest rates, exchange rates, the central bank, commercial bank, financial markets, financial engineering, the money supply and demand, monetary policy, inflation, financial supervision, etc. Through the studying of this course, students can systematically master the basic principles and theories of currency, credit and banking. Moreover, they can understand the characteristics and development trends of currency, credit, bank and modern finance in the market economy. Finally, they can have a better understanding of the basic knowledge related to the financial sector and how to realize macroeconomic regulation with monetary policy tools.

编 码: BA05106**Code:**BA05106**课程名称:** 金融工程概论**Course Title:**Introduction to Financial Engineering**课程类别:** 专业核心**Course category:**Required Core Course**学 分:** 3**Credit(s):**3**开课单位:** 工商管理学院**Offering College/School:**College of Business Administration

课程描述: 本课程是经济、金融、保险、管理等专业的基础课程，共有四篇：金融概览、金融机构、金融市场与风险管理、金融调控与金融监管；内容主要包括货币、利率、汇率、中央银行、商业银行、金融市场、金融工程、货币供给与需求、货币政策、通货膨胀、金融监管等。通过本课程学习，学生能系统掌握货币、信用、银行的基本原理和基本理论；了解市场经济条件下货币、信用、银行及现代金融的特点与发展趋势；掌握有关金融行业的基本知识和基本技能；了解如何运用货币政策工具对宏观经济进行调控。

Course description: This course is a basic course in economics, finance, insurance, management, etc. It's divided into four chapters: financial overview, financial institutions, financial markets and risk management, financial control and financial supervision. The main contents include currency, interest rates, exchange rates, the central bank, commercial bank, financial markets, financial engineering, the money supply and demand, monetary policy, inflation, financial supervision, etc. Through the studying of this course, students can systematically master the basic principles and theories of currency, credit and banking. Moreover, they can understand the characteristics and development trends of currency, credit, bank and modern finance in the market economy. Finally, they can have a better mastering the basic knowledge related to the financial sector and understanding how to realize macroeconomic regulation with monetary policy tools.

编 码: BA05107**Code:**BA05107**课程名称:** 金融市场学**Course Title:**Financial Markets**课程类别:** 专业核心**Course category:**Required Core Course**学 分:** 3**Credit(s):**3**开课单位:** 工商管理学院**Offering College/School:**College of Business Administration

课程描述: 本课程是金融工程专业的专业核心课,以金融学为前导课程,为金融风险管理方面课程学习提供理论基础。本课程包括金融市场概况和发展趋势,货币市场、债券市场、股票市场、基金市场、外汇市场、黄金市场和衍生工具市场等金融市场的各个子市场的基本介绍以及研究方法等内容。学生需了解现代金融市场理论和实践的发展趋势,理解金融市场的基本概念、基本分析方法等基础知识;掌握金融市场的普遍规律、基本原理和一般方法,并能灵活运用已学知识分析实际金融市场的基本特征。通过学习本课程,应掌握整个金融市场和不同金融子市场情况的基本知识,获得从金融市场总体和微观结构两个层面上认识和把握金融市场的基本素养,同时锻炼和提升当金融事件发生时,分析不同实际金融市场基本情况的能力。

Course description: This course, as the specialized education for financial engineering major, based on the leading course Finance, aims to act as the theoretical basis of financial risk management course. This course includes the general situation and development trend of financial market, as well as the basic introduction and research methods of subordinate markets of financial market including money market, bond market, stock market, fund market, foreign exchange market, the gold market and derivatives market and others respectively. Students need to learn the development trend of modern financial market theory and practice, understand the basic concepts, basic analysis approach of financial markets, and master the general rule, basic principle and general method of financial markets, and apply the knowledge to analyze the basic characteristics of the actual financial markets flexibly. By learning this course, students should master the basic knowledge of financial risk management, obtain the basic qualities to understand and grasp the financial market from two levels of overall financial market and micro structure, at the same time, exercise and improve the ability to analyze basic situation of different actual financial markets when financial events occur.

编 码: BA05115**Code:**BA05115**课程名称:** 金融计量学**Course Title:**Financial econometrics**课程类别:** 专业核心**Course category:**Required Core Course**学 分:** 3**Credit(s):**3**开课单位:** 工商管理学院**Offering College/School:**College of Business Administration

课程描述: 计量经济学是以数理经济学和数理统计学为理论基础和方法论基础的交叉科学。它以客观经济系统中具有随机性特征经济关系为研究对象,用数学模型方法描述具体的经济变量关系,为经济计量分析工作提供专门的指导理论和分析方法。统计学、经济理论和数学这三者的统一构成了计量经济学。计量经济学观点认为经济变量关系具有随机性特征,数理统计方法便成为研究经济变量关系和经济理论概念定量化的有效方法。用数学模型定量描述经济变量关系是计量经济学的基本任务,包括设定模型、估计参数、检验模型和运用模型研究经济变量关系等具体任务。

Course description: Econometrics in mathematical economics and mathematical statistical basis for the theory and methodology of science-based. With the objective economic system with random characteristics of economic relations for the study, using mathematical model describing the specific economic variables, econometric analysis to provide specialized guidance theory and analysis methods. Statistical, economic theory and mathematics among the unity of this constitutes a quantitative economics. Econometric view that economic relations between the random variable characteristics of mathematical statistics on economic variables have become economic theory and quantitative concept of the effective ways. Mathematical model used quantitative description of relations between economic variables is the basic tasks of econometrics, including setting up model, the estimated parameters, testing and use of model model of relationship between economic variables, such as specific tasks.

编 码: BA05116**Code:**BA05116**课程名称:** 金融经济学**Course Title:**Financial Economics**课程类别:** 专业核心**Course category:**Required Core Course**学 分:** 3**Credit(s):**3**开课单位:** 工商管理学院**Offering College/School:**College of Business Administration

课程描述: 金融经济学是金融研究的入门,旨在用经济学的一般原理和方法来分析金融问题。本课程侧重于提出金融所涉及的基本经济问题、建立对这些问题进行分析的理论框架、基本概念和一般原理。在这个框架下,建立解决各个基本问题的简单理论模型。为后续学习和理解金融学专业课程的经济机制奠定理论基础。

Course description: Financial economics is the basic course for financial research. In general, the principles and method of economics will be applied to analyze financial problems. This course focuses on basic economic problem in finance field, and uses relevant theoretical frameworks, basic concepts and principles to analyze these problems. Then to build the simple theory model to resolve the basic problem. Additional, this course will help students understanding economics mechanism of financial professional course and lay a theoretical foundation for future studies.

编 码: BA05117**Code:**BA05117**课程名称:** 金融风险管理**Course Title:**Financial risk management**课程类别:** 专业核心**Course category:**Required Core Course**学 分:** 3**Credit(s):**3**开课单位:** 工商管理学院**Offering College/School:**College of Business Administration

课程描述: 本课程是金融工程专业的专业核心课,以金融学、金融市场学为前导课程,为金融工程学方面课程学习提供理论概念及模型基础。本课程包括金融风险和金融风险管理的概念和理论,金融风险的识别、度量与预测,金融风险管理战略及策略,信用风险、流动性风险、利率风险、汇率风险、操作风险以及股票市场、债券与基金市场、金融衍生产品和保险、金融信托与租赁风险管理等内容。学生需了解一般的金融风险管理技术,理解金融风险的基本概念、基础理论、金融风险管理的基本原理;掌握识别和分析金融风险的正确方法,并能灵活运用已学知识管理金融风险。通过学习本课程,学生学会金融风险管理的基本知识,获得管理金融风险的基本素养,同时锻炼和提升解决金融风险实际问题的能力,树立正确的金融风险防范意识和全面的金融风险管理理念,提高金融科学方面的知识素养。

Course description: This course, as the specialized education for financial engineering major, based on the leading courses including Finance and Financial Markets, aims to act as the basis of theoretical concepts and models for financial engineering course. This course includes financial risk and financial risk management concepts and theories, financial risk identification, measurement and prediction, financial risk management strategy and tactics, credit risk, liquidity risk, interest rate risk, exchange rate risk, operation risk, as well as the stock market, bond and fund market, financial derivatives and insurance, financial trust and lease risk management and so on. Students need to learn the general financial risk management technology, understand the basic concepts, basic theory of financial risk as well as the basic principle and other basic knowledge of financial risk management, and master the correct way to observe and analyze financial risks, at the same time, use the knowledge to manage the financial risks flexibly. By learning this course, students should know the basic knowledge of financial risk management, obtain the basic qualities to manage financial risks, at the same time, exercise and improve the ability to solve the problem of the actual financial risk, set up the correct financial risk prevention consciousness and comprehensive financial risk management concept, improve the knowledge of financial science literacy.

编 码: BA05118**Code:**BA05118**课程名称:** 国际金融(S)**Course Title:**International Finance(S)**课程类别:** 专业核心**Course category:**Required Core Course**学 分:** 3**Credit(s):**3**开课单位:** 工商管理学院**Offering College/School:**College of Business Administration

课程描述: 本课程是财务管理(金融工程)专业的必修课程,共有四篇:国际金融导论、汇率决定理论、外汇衍生品、国际交易风险管理;内容主要包括国际金融管理的基础、外汇交易市场、汇率的决定和货币衍生工具、外汇风险暴露及其管理、国际金融市场和国际金融机构、跨国企业的金融管理等。通过本课程的学习,学生能够掌握以开放经济条件下国际间的资本流动、制度安排及相关套期保值业务的基本原理和基本理论;了解市场经济条件下货币、银行及国际金融交易与投融资活动的特点与发展趋势;掌握国际金融市场及国际金融工具交易与应用的基本知识和基本技能;提高分析和解决国际金融管理有关问题的能力,从而为较好地从事相关工作打下坚实的基础。

Course description: This course is a compulsory course in financial engineering. It's divided into four chapters: International financial management overview, forex determination theory, foreign exchange derivatives, financial management of forex exposure. The main contents include overview of international financial management, forex markets, forex determination and forex derivatives, forex exposure and hedging strategies, international financial markets and institutions, financial management of multinational corporations, etc. Through the studying of this course, students can systematically master the basic principles and theories of international capital mobilization in the backdrop of the open market economy. Moreover, they can understand the characteristics and development trends of the international financial transaction principles and operation techniques in the market economy. Finally, they can have a better mastering the basic knowledge related to the international financial markets and international financial transaction instruments. Ultimately, they can enhance the analytic ability on international financial activities and its rules, laying the foundation for subsequent courses learning, and professional career.

编 码: BA05119**Code:**BA05119**课程名称:** 投资学**Course Title:**Investments**课程类别:** 专业核心**Course category:**Required Core Course**学 分:** 3**Credit(s):**3**开课单位:** 工商管理学院**Offering College/School:**College of Business Administration

课程描述: 《投资学》课程是工商管理专业本科生选修课, 培养学生具备解决投融资决策领域实践问题。课程要求学生具有良好的英语、概率数理统计和计算机功底和较为扎实的经济学理论基础。为后续课程, 如证券投资分析、投资项目管理、金融市场风险管理等打下基础。

Course description: Investment is an optional course for the students in the major of business management. It aims to answer the questions occurred in the fields of investment and financing. This course requires the students a good English skill and some basic abilities including probability and mathematical statistics, computational operation and economics theory. This course also is the foundation of other future course like security investment analysis, project investment management, and financial market risk management.

编 码: BA05120**Code:**BA05120**课程名称:** 随机过程**Course Title:**Stochastic Process**课程类别:** 专业核心**Course category:**Required Core Course**学 分:** 3**Credit(s):**3**开课单位:** 工商管理学院**Offering College/School:**College of Business Administration

课程描述: 随机过程的研究对象为随时间变化的随机现象,即随时间不断变化的随机变量,通常被视为概率论的动态部分。概率论和随机过程在经济规律的定量分析中,得到广泛应用,是现代金融理论的理论工具,也是金融分析中经常使用的数学工具,在现代金融及其衍生市场起着重要的作用,尤其是期权定价模型的出现使得期权这一衍生工具有章可循。该课程主要讲述随机过程的基本理论,介绍金融学中常用的随机过程:泊松过程、马尔可夫过程、鞅、布朗运动以及随机积分。并介绍一些金融模型,以突出随机过程的基本概念在金融学中的应用和对金融现象的描述。

Course description: Study subjects were randomized process is time-varying random phenomenon, which change over time random variable, generally regarded as the dynamic part of probability theory. Probability theory and stochastic processes in quantitative analysis of economic laws, are widely used, are mathematical tools of theoretical tools of modern financial theory is often used in financial analysis plays an important role in the modern financial and derivatives markets, especially option pricing model makes the emergence of the derivatives rule-based options. The course focuses on the basic theory of stochastic processes, introduce finance commonly used stochastic processes: the Poisson process, Markov process, martingale, Brownian motion and stochastic integral. And introduce some financial models to highlight the basic concepts of stochastic processes in finance applications and description of the financial phenomena.

编 码: BA05121

Code:BA05121

课程名称: 金融衍生工具(S)

Course Title:Financial Derivatives (S)

课程类别: 专业核心

Course category:Required Core Course

学 分: 3

Credit(s):3

开课单位: 工商管理学院

Offering College/School:College of Business Administration

课程描述: 本课程为金融工程专业本科生专业核心课程之一,旨在通过详细介绍远期、期货、互换和期权四种主要的金融衍生工具的基础知识和基本应用,特别是各种工具的无套利定价技术,让学生理解和掌握金融衍生工具的基本分析方法,培养学生创造性分析和解决问题的能力。

Course description: As one of the key courses for undergraduates majoring in financial engineering, it aims to enable students to understand and master the basic methods to analyze financial derivative instruments, through detailed introduction of basic knowledge and application of the fore major financial derivative instruments, i.e., forwards, futures, swaps and options, especially the non-arbitrage pricing technology for the four instruments, to cultivate students creative analysis and problem solving skills.

编 码: BA05122**Code:**BA05122**课程名称:** 中级财务会计学**Course Title:**Intermediate Financial Accounting**课程类别:** 专业核心**Course category:**Required Core Course**学 分:** 4**Credit(s):**4**开课单位:** 工商管理学院**Offering College/School:**College of Business Administration

课程描述: 本课程是会计专业的专业核心课程,以《基础会计学》为前导课程,为《高级财务会计学》《成本会计学》《管理会计学》《审计学》等方面课程学习提供理论基础。本课程主要包括财务会计概念框架、会计要素的确认与计量、财务报表的编制等内容,以我国企业会计准则和相关国际惯例为依据,既有财务会计理论的阐述,又有财务会计实务的讲析。学生需了解财务会计学的基本理论和方法,理解相关会计专业术语的概念,掌握会计要素确认的原则和计量的标准、财务报表的编制程序和编制方法,并能将所学理论知识灵活运用于会计实践之中。通过学习本课程,学生学会对财务会计一般业务的分析和处理,获得一定的会计职业判断能力,锻炼和提升对复杂会计业务的分析、处理能力。

Course description: This course is a core curriculum of accounting, leading with the basis of accounting courses for advanced financial accounting, cost accounting, management accounting, auditing, and other aspects of the course provides a theoretical basis. This course includes the conceptual framework of financial accounting, accounting confirmation and measurement, preparation of the financial statements and other information, according to the Chinese accounting standards for business enterprises and relevant international practices, financial accounting theory, and financial accounting practices. Students need to understand the basic theories and methods financial accounting, understanding accounting terminology concepts, mastering accounting recognition principles and measurement standards, coding and presentation of the financial statements, and the flexible application of the theoretical knowledge in practice. Through this course, students learn how to analysis and processing of the financial accounting General business, access to certain accounting occupation judgment ability, exercise and improve analysis on complex accounting and processing capabilities.

编 码: BA05123**Code:**BA05123**课程名称:** 成本会计学**Course Title:**Cost Accounting**课程类别:** 专业核心**Course category:**Required Core Course**学 分:** 2**Credit(s):**2**开课单位:** 工商管理学院**Offering College/School:**College of Business Administration

课程描述: 本课程是一门应用性的微观经济管理课程,是财务管理方向的专业核心课。成本会计学有着自身相对独立的理论和方法体系,是财务会计专业知识结构中的重要组成部分。它系统阐述了工业企业的产品成本核算与管理的基本理论和基本方法,施工企业和商品流通企业等不同行业成本会计核算方法的特点与方法。同时,考虑到企业经营决策和成本控制对成本信息的多方面需要,概括地介绍了变动成本法、标准成本法和作业成本法。本课程的教学是在各专业本科生学习会计专业课程和相关经济法规课程的基础上进行的。

Course description: The course is an applied micro-economic management courses, and is the core professional course in the direction of Accounting and Financial Management. Cost Accounting has its own relatively independent system of theory and method, and is the important component of Financial accounting's knowledge structure. It systematically expounded the basic theory and method of product cost accounting and management in the industrial enterprises. The characteristic and method of cost accounting in different trades like construction enterprises and merchandising enterprises. What's more, taking into account business decision and cost control of enterprise has all round needs in cost information , variable costing , standard costing and activity-based costing are briefly introduced. The course is a study for undergraduates of varied Major who have professional courses of accounting and courses of related economic laws.

编 码: BA05124**Code:**BA05124**课程名称:** 管理会计学**Course Title:**Management Accounting**课程类别:** 专业核心**Course category:**Required Core Course**学 分:** 2**Credit(s):**2**开课单位:** 工商管理学院**Offering College/School:**College of Business Administration

课程描述: 管理会计学是一门新兴的学科,它是为适应企业内部管理上预测、决策、规划、控制和考核的需要而产生的。它是把会计和管理有机地结合起来,为加强企业内部管理,提高经济效益服务。要真正掌握这门学科,不仅需要具备会计学的基础知识,还需要掌握相关的数学、统计学、管理学、经济学、心理学、组织行为学等多门管理知识。通过系统的学习管理会计知识,有助于拓展视野,更新知识结构和借鉴先进的管理经验。

本课程主要讲授现代管理会计的基本理论、基本方法和基本技术。内容主要包括成本性态分析、本量利分析、预测分析、短期经营决策分析及其应用、全面预算管理、标准成本法与差异化分析、责任会计、绩效评价与战略管理会计等内容。

Course description: As a newly developed discipline, management accounting is product of the needs to forecast, make decisions, plan, control and evaluate performance. It integrates accounting and management so as to service the internal management and improve economic efficiency. As a result, it is mix of multi disciplines, and requires knowledge of such courses as mathematics, statistics, management, economics, psychology, and organizational behavior. Since it covers the scope of different disciplines, it is beneficial to the horizon expansion and knowledge updating by learning management accounting.

This course covers the following aspects: cost behavior, CPV analysis, forecasting, short-term decision making, overall budgeting management, standard costing and variance analysis, responsibility accounting, performance evaluation and strategic management accounting.

编 码: BA05125**Code:**BA05125**课程名称:** 高级财务会计学**Course Title:**Advanced Financial Accounting**课程类别:** 专业核心**Course category:**Required Core Course**学 分:** 4**Credit(s):**4**开课单位:** 工商管理学院**Offering College/School:**College of Business Administration

课程描述: 本课程是会计专业的专业核心课程,以《中级财务会计学》为前导课程。本课程主要包括合并会计、所得税会计、租赁会计、外币会计和金融衍生工具会计等内容,学生需了解诸如公司法、合并法规、外汇管理法规、金融衍生工具相关法规等法律知识,理解会计业务知识,掌握会计准则的发展动态,并能灵活运用财务会计的一般理论与方法等。通过学习本课程,学生学会对资本市场的复杂业务进行会计思维,锻炼和提升会计知识的综合运用和分析能力等。

Course description: This course is the core of accounting curriculum, and its leading course is intermediate financial accounting. Main contents of the course include the consolidated accounting, tax accounting, lease accounting, foreign currency accounting and financial derivatives accounting, etc. Students need to obtain legal knowledge concerning company law, merger regulations, foreign exchange rules, and financial derivative related regulations, also need to understand the accounting business knowledge, know about the development of accounting standards, and flexibly use general theories and methods of financial accounting. By learning this course, students learn the accounting thinking about complex businesses in capital markets, cultivate and promote the comprehensive application skills and analytical skills of accounting knowledge, etc.

编 码: BA05126**Code:**BA05126**课程名称:** 财务分析**Course Title:**Financial Analysis**课程类别:** 专业核心**Course category:**Required Core Course**学 分:** 3**Credit(s):**3**开课单位:** 工商管理学院**Offering College/School:**College of Business Administration

课程描述: 本课程是会计学及财务管理专业的核心课程。财务分析对公司经理、投资分析家、投资者和贷款人来说至关重要。本课程对于那些有意向在特定行业（如：财务会计、投资理财、信贷审核、证券投资、管理咨询、商业银行、投资银行等）发展的学生具有重要的实践指导意义。通过该课程的学习，有助于学生掌握财务报表分析的基本原理和方法，对企业的财务状况、经营成果和现金流量情况等进行合理的分析与评价，从而能够帮助报表使用者进行正确的投资与信贷决策。

Course description: This course is a core course in accounting and financial management. Financial analysis of company managers, investment analysts, investors and lenders is crucial. This course is for those who are interested in a specific industry (such as accounting, finance and investment, credit check, securities investment, management consulting, commercial Banks, investment Banks, etc.) has an important practical guiding significance to the development of students. Through the course of learning, help students master the basic principle and method of financial statement analysis, to the enterprise's financial position, operating results and cash flow conditions and so on to carry on the reasonable analysis and evaluation, which can help the report user to make the right investment and credit decisions.

编 码: BA05127**Code:**BA05127**课程名称:** 国际会计学(S)**Course Title:**International Accounting(S)**课程类别:** 专业核心**Course category:**Required Core Course**学 分:** 3**Credit(s):**3**开课单位:** 工商管理学院**Offering College/School:**College of Business Administration

课程描述: 国际会计是会计专业的核心课程,以中级财务会计学、高级财务会计学为先导课程,本课程的目的主要从国际的角度完善会计专业本科学生的专业知识体系,开拓其国际视野,跟踪了解国际会计发展的最新进展。本课程以英文原版书作为教材,介绍国际会计的形成、发展与分类,对世界上各主要国家会计制度的差异及其形成原因进行比较与分析,介绍会计国际协调与趋同的程度和进展情况,比较我国会计准则与国际会计准则的差异,对国际财务报表的列报和披露进行分析。通过本课程的学习,使学生掌握基本的会计专业术语,培养学生在会计专业英语方面的阅读能力和理解能力,掌握企业在开展跨国业务中所面临的会计问题以及如何利用国际会计惯例来解决这些问题,学习国际会计领域的前沿知识和理论,使学生能跟踪国际会计领域的最新发展,能站在国际化和全球化的视角来考虑问题,为培养高层次的国际化会计人才打下基础。

Course description: International Accounting is a core course for accounting majors. The prerequisite courses are intermediate financial accounting and advanced financial accounting. The main purpose of this course is to perfect the knowledge system of the accounting majors from international perspective, broaden their horizon and follow the latest development of international accounting. This course uses original English version as the textbook. The main contents of this course include: the introduction, development and classification of international accounting; the comparison of accounting standards and practices of different countries; the harmonization and convergence of international accounting; international financial statements and analysis; and the comparison of Chinese accounting standards and international accounting standards; the interpretation of international financial statement, and etc. After the study of this course, the students can master the basic accounting terms, develop the ability to read and understand the accounting major English, master the problems that the international corporation facing when carry out the international business and know how to solve these problems using international accounting practices, learn the advanced knowledge and theory in the international accounting field, can follow the latest development of international accounting, can think from the perspective of internationalization and globalization, and foster strong foundation of an international accounting person.

编 码: BA05128**Code:**BA05128**课程名称:** 审计学**Course Title:**Auditing**课程类别:** 专业核心**Course category:**Required Core Course**学 分:** 3**Credit(s):**3**开课单位:** 工商管理学院**Offering College/School:**College of Business Administration

课程描述: 审计学属财务管理专业与会计专业的专业核心课。这门课是基于审计目标探讨审计的基本理论和方法。包含了政府审计、注册会计师审计以及内部审计的基本知识。在兼顾理论与应用、基础知识与先进技术的理念指引下,讨论我国上市公司年度财务报表审计实务与案例。希望通过该课程的学习,使学生全面掌握审计的基本概念、基本理论和基本技能,提升其分析问题和解决问题的能力,为胜任审计工作和进行审计学理论研究打下坚实的基础。

Course description: Auditing is a professional basic course for economics and management majors. This course is aimed at exploring the fundamental theories and methods on the basis of auditing objectives. It contains the essential knowledge of government audit, certified public accountant audit and internal audit. During the course we will discuss the auditing practices and cases of Chinese public company's annual financial statements. We will give considerations to both theory and application, and primary knowledge and advanced technology. We hope that through this course, students can fully grasp fundamental concepts, theories and skills of auditing and enhance their abilities to analyze and solve problems, which will built a solid foundation for audit practices and auditing theory research.

编 码: BA05129**Code:**BA05129**课程名称:** 会计信息系统**Course Title:**Accounting Information System**课程类别:** 专业核心**Course category:**Required Core Course**学 分:** 3**Credit(s):**3**开课单位:** 工商管理学院**Offering College/School:**College of Business Administration

课程描述: 本课程是会计专业的专业核心课程,以基础会计、中级财务会计和数据库为前导课程,为会计信息化方面课程学习提供理论基础。

本课程主要包括系统分析与系统设计方法、各模块的流程设计与操作和各模块的内控等内容,学生需了解系统分析与系统设计方法,理解各模块的流程设计,掌握各模块的操作和各模块的主要内控,并能灵活运用到其它主流会计软件等。通过学习本课程,学生学会主流会计软件的操作,具体模块有:系统管理、总帐、报表、工资、固定资产、应收、应付、存货、库存、采购、销售等,获得系统分析与系统设计方法,锻炼和提升学生分析问题、解决问题的能力。

Course description: This course is a core courses of accounting specialty, with basic accounting, intermediate financial accounting and database for leading curriculum, providing theoretical basis for accounting information-based course.

This course mainly includes the system analysis and system design method, process design and operation of various modules and each module of the internal control content, students need to understand the system analysis and system design method, understand the process design of each module, to master the operation of each module and the main control module, and can apply to other mainstream accounting software, etc. By learning this course, students learn to mainstream operation of accounting software, the modules are: system management, general ledger, statements, payroll, fixed assets, accounts receivable, payable, inventory, inventory, purchasing, sales, etc., system analysis and system design method, exercise and improve students' ability to analyze problems, solve the problem.

编 码: BA05130**Code:**BA05130**课程名称:** 中级财务管理学**Course Title:**Intermediate financial management**课程类别:** 专业核心**Course category:**Required Core Course**学 分:** 3**Credit(s):**3**开课单位:** 工商管理学院**Offering College/School:**College of Business Administration

课程描述: 本课程是财务管理专业本科生必修的一门核心专业课。本课程的前导课程为财务管理基础,学生必须掌握金融学、微观经济学、会计学等,后续课程将会有高级财务管理、财务管理案例、财务理论专题等。

本课程主要包括财务基本理论、筹资财务理论与实务、投资财务理论与实务和股利分配财务理论与实务等内容,学生需了解金融与管理方面相关知识,理解相关财务理论,掌握相关理论精要,并能灵活运用在实务中。

通过学习本课程,学生将会:1.如何根据 CFO 的现代财务管理新需求形成一套财务管理新模式——战略目标→财务目标→财务预算与控制→价值评估→投资决策→融资决策→资本营运管理→财务风险管理;2.将财务管理理论和模型转换为分析、理解和帮助解决公司财务管理实务问题的有效工具。

Course description: This is a compulsory core curriculum for students who major in financial management. The prerequisite course is《Fundamentals of Financial Management》. Students must grasp 《Finance》,《Microeconomics》and 《Accounting》,etc. The follow-up courses are《Advanced Financial Management》,《Case of Financial Management》and 《Special Topic of Financial Theory》, etc .

This course mainly includes the basic theory of finance, financing, investment, financial theory and practice of financial theory and practice and dividend distribution of financial theory and practice, students need to understand the financial and management knowledge, understand the relevant financial theory, grasp the essence of relevant theory, and can apply in practice.

By learning this course, students will:1、How to form a new model of financial management according to the new demand for CFO' s modern financial management: Strategic Objective → Financial Goals →Financial Budget and Control →Value Assessment → Investment Decision → Financing Decision → Capital Operation Management →Financial Risk Management.2、To turn the financial management theory and model into effective tools to analyze, understand, and help resolve practices of corporate financial management.

编 码: BA05131**Code:**BA05131**课程名称:** 高级财务管理学(S)**Course Title:**Advanced Financial Management(S)**课程类别:** 专业核心**Course category:**Required Core Course**学 分:** 3**Credit(s):**3**开课单位:** 工商管理学院**Offering College/School:**College of Business Administration

课程描述: 这是一门为会计学专业学生开设的专业选修课, 并假定这些学生预先学习了会计学、财务学原理等相关课程, 具备了会计学和财务学的基本知识。本课程的主要内容包括: 财务经理的角色与责任、跨国公司的经营环境、高级投资评价、并购、公司重构与重组、高级风险管理技术等。希望通过本课程的学习, 让学生获得海外筹资、投资, 以及运用金融衍生工具开展风险管理的能力。

Course description: This is professional elective course for accounting majors who have basic accounting and financial management knowledge. The course mainly includes the role and responsibilities of senior financial executives, the economic environment for multinationals, advanced investment appraisal techniques, acquisitions and mergers, corporate reconstruction and reorganization, advanced risk management techniques, and so on. We wish, After learning this course, students can gain the techniques and capabilities of financing and investment overseas, as well as the techniques and capabilities of risk management using derivative financial instruments.

编 码: BA05132**Code:**BA05132**课程名称:** 计量经济学**Course Title:**Econometrics**课程类别:** 专业核心**Course category:**Required Core Course**学 分:** 3**Credit(s):**3**开课单位:** 工商管理学院**Offering College/School:**College of Business Administration

课程描述: 计量经济学是财务管理专业的专业核心课,是经济学的一个分支学科。该课程以统计学、数学方法为基础,以经济理论为指导,以计算机为手段,通过建立计量经济模型,考察和研究经济社会中各种经济变量之间的数量关系,预测经济发展的趋势,检验经济政策效果的一门非常具有实用价值的学科。课程在介绍计量经济学基本理论的基础上,介绍模型各种估计、各种检验的 Eviews 软件操作方法,使学生能建立和使用计量经济模型,分析、处理经济问题,培养学生实证分析的初步能力。

Course description: Econometrics is a specialized core course of financial management major, and it is a branch of economics.. The course in statistics and mathematical methods based, to economic theory as a guide, the computer as a means through establishing econometric model, the quantitative relationship between the various economic variables in the study of economic society, forecast the trend of the economic development, to test the economic effects of policies, a very practical value of the subject. Course on the basis of the basic theory of econometrics, the model estimation, test a variety of Eviews software operation, so that the students can establish and use econometric model, analysis, dealing with the economy, cultivate students an empirical analysis of the preliminary ability.

编 码: BA05140**Code:**BA05140**课程名称:** 信息系统程序设计基础**Course Title:**Information System Programming Foundation**课程类别:** 专业核心**Course category:**Required Core Course**学 分:** 3**Credit(s):**3**开课单位:** 工商管理学院**Offering College/School:**College of Business Administration

课程描述: 本课程是信息管理与信息系统专业的专业核心课程, 为程序设计方面课程学习提供基础理论和实践经验。

本课程着重讲授 Java 程序设计语言及其实例应用等相关知识。java 语言是当前最流行的网络编程语言之一, 它具有面向对象、与平台无关、安全、多线程等特点。学生通过该课程的学习, 初步掌握 Java 语言的基本数据类型、程序控制结构、函数等语法要素, 同时也训练学生掌握良好的编程风格和清晰规范的程序设计。本课程采用多媒体教学方式, 强调理论和实验并重。

Course description: This course is the information management and the information system specialized foundation required course, studies for the programming aspect curriculum provides the basic theory and the experience.

Teaches the Java programming language and the example application emphatically and so on the related knowledge. The java language is one of current most popular network programming languages, it has object-oriented, has nothing to do with, characteristics and so on security with the platform, multithreading. The student through this course study, initially grasps Java grammar essential factors and so on the language master data type, procedure control structure, function, simultaneously also trains the student to grasp the good programming style and the clear standard programming. This course selects the multimedia teaching method, emphasized the theory and the experiment pays equal attention to.

编 码: BA05141

Code:BA05141

课程名称: 信息资源管理

Course Title:Information Resource Management

课程类别: 专业核心

Course category:Required Core Course

学 分: 3

Credit(s):3

开课单位: 工商管理学院

Offering College/School:College of Business Administration

课程描述: 课程主要包括: 信息资源管理的概念、信息资源管理技术基础、信息资源过程管理、信息资源安全管理、网络信息资源管理、信息系统资源管理、企业信息资源管理、政府信息资源管理、信息政策与信息法规。

Course description: The main contents of course include: the basic concept of information resources management, the technology of information resources management , the process management of information resources management, the information security management, the management of network information, the information system resources management, enterprise information resource management, government information resource management, information policy and information regulation.

编 码: BA05142**Code:**BA05142**课程名称:** 数据结构与算法分析**Course Title:**Data Structures and Algorithm Analysis**课程类别:** 专业核心**Course category:**Required Core Course**学 分:** 3**Credit(s):**3**开课单位:** 工商管理学院**Offering College/School:**College of Business Administration

课程描述: “数据结构与算法分析”是信息管理与信息系统专业的一门重要专业基础课，以程序设计为先导，为计算机技术及其应用等方面的课程学习提供基础。课程内容由数据结构和算法分析初步两部分组成。数据结构是处理大量非数值性程序问题而形成的一门学科，内涵丰富、应用范围广；算法分析强调最基本的算法设计技术和分析方法。该课程既有完整的学科体系和学科深度，又有较强的实践性，学生需要理解和掌握各种数据结构的概念及其有关的算法；熟悉常用数据结构的典型应用。通过学习本课程，学生能够从算法和数据结构的相互依存关系中把握算法设计的艺术和技能，提升设计复杂程序的能力。

Course description: This course is an important professional basic course of information management and information system major. The course is based on the design of the program and provides the basis for the computer technology and its application in the course of the study. The curriculum content consists of two parts: the data structure and algorithm analysis. Data structure is a discipline dealing with a large number of non-numerical procedures. Algorithm analysis emphasizes the basic algorithm design techniques and analysis methods. This course not only has the complete discipline system and the discipline depth, but also has the strong practice; students should understand and grasp the concept of various data structures and algorithms, familiar with typical application of commonly used data structure. Through the study of the course, students can grasp the application of algorithm design art and skill in from interdependence of algorithm and data structure, enhances the ability to design complex programs.

编 码: BA05143**Code:**BA05143**课程名称:** 高级数据库技术**Course Title:**Advanced database technology**课程类别:** 专业核心**Course category:**Required Core Course**学 分:** 3**Credit(s):**3**开课单位:** 工商管理学院**Offering College/School:**College of Business Administration

课程描述: 《高级数据库技术》是信息管理与信息系统专业的一门专业核心课程。以计算机应用基础、离散数学为前导课程,为管理信息系统、信息系统开发与设计等课程学习提供基础。本课程的教学任务是针对大量数据管理操作,全面介绍数据库系统的基本概念,基本原理和基本技术。结合目前信息系统建设的实际全面讲授关系数据库标准语言--SQL、关系数据库设计过程方法,使学生掌握现代信息系统中数据库开发技术;在数据库基本理论的基础上,讲授恢复技术、并发控制技术,数据库实现基本技术以及数据库安全性和完整性控制,使学生掌握数据库系统维护管理系统;对数据库技术的研究动态,如分布式数据库、数据挖掘等也作简略介绍,使学生简单了解目前数据库发展的前沿技术。在理论和实践上为学生的后续发展打下坚实基础。

Course description: Advanced database technology is a professional basic course in information management and information system, electronic business. This course is for a large number of data management operations, a comprehensive introduction to the basic concepts of database system, basic principle and technology. combined with the current information system construction overall teaching standard relational database language --SQL, relational database design process, to enable students to master the development of database technology of modern information system; in the basic theory of database, teaching recovery, concurrency control, the database to achieve the basic technology and database security and integrity control, to make students master the database system maintenance and management system; research on database technology, such as distributed database, data mining, also make a brief introduction, to enable students to know at present, the development of advanced technology of database. For the subsequent development , students have a solid foundation in theory and practice.

编 码: BA05144**Code:**BA05144**课程名称:** 信息系统开发工具(S) **Course Title:**Information System Development Tools(S)**课程类别:** 专业核心**Course category:**Required Core Course**学 分:** 3**Credit(s):**3**开课单位:** 工商管理学院**Offering College/School:**College of Business Administration

课程描述: JSP 与 Servlet 是 Java、J2EE 平台关键的 Web 层技术。基于 Servlet 与 JSP 的 JavaWebDevelopment（简称 JCP）提供基于 Java 技术创建可以部署到 JavaEE6 应用服务器的 Web 应用的知识与技能。将在该课程中学习 JavaWeb 应用的分析、设计、开发与部署。课程实验练习构建与部署小型到中型 Web 应用，这类应用常见于企业内部网与访问量较低的商业网站。同时，该课程将提供一个准备参加 Oracle(Sun)公司的 JavaWeb 应用开发的认证考试(SCWCD)。

Course description: Java Server Pages(TM) (JSP(TM) page) technology and servlets are the key web-tier technologies defined in the Java(TM) Platform, Enterprise Edition (Java EE platform). The Web Component Development With Servlet and JSP(TM) Technologies course provides experienced developers of Java technology applications the knowledge and skills to quickly build web applications suited to any Java EE 6 application server using JSP and servlet technologies. Students are exposed to the current methods for analyzing, designing, developing, and deploying web applications with Java technologies. Lab exercises provide students with experience in constructing and deploying the small-to-medium scale web applications found in intranet and low-volume commercial sites. The course features the Java EE 6 technology. This course is also an excellent method of preparing for the Oracle(Sun) Certified Professional, Java Platform, Enterprise Edition 6 Java Server Pages and Servlet Developer certification examination(SCWCD).

编 码: BA05145**Code:**BA05145**课程名称:** 信息系统分析与设计(S)**Course Title:**Analysis and Design of Information system (S)**课程类别:** 专业核心**Course category:**Required Core Course**学 分:** 3**Credit(s):**3**开课单位:** 工商管理学院**Offering College/School:**College of Business Administration

课程描述: 本课程论述组织在决定其业务执行方式,特别是基于计算机的技术怎样才能最有效地在业务组织方式方面发挥作用时采用的过程、方法、技术和工具。本课程为分析业务问题或机会、决定基于计算机的技术在解决业务需要能发挥的作用、系统阐述技术解决方案的业务需求、指定满足业务需求所需的技术能力(性能)获取的备选途径、为内部、第三方供应商或商品化软件包开发信息系统解决方案定义需求提供了一种系统化的方法学。

Course description: This course discusses the processes, methods, techniques and tools that organizations use to determine how they should conduct their business, with a particular focus on how computer-based technologies can most effectively contribute to the way business is organized. The course covers a systematic methodology for analyzing a business problem or opportunity, determining what role, if any, computer-based technologies can play in addressing the business need, articulating business requirements for the technology solution, specifying alternative approaches to acquiring the technology capabilities needed to address the business requirements, and specifying the requirements for the information systems solution in particular, in-house development, development from third-party providers, or purchased commercial-off-the-shelf (COTS) packages.

编 码: BA05146**Code:**BA05146**课程名称:** 信息网络工程设计**Course Title:**Information Network Engineering Design**课程类别:** 专业核心**Course category:**Required Core Course**学 分:** 3**Credit(s):**3**开课单位:** 工商管理学院**Offering College/School:**College of Business Administration

课程描述: 本课程是信息管理与信息系统专业的专业核心课程,以计算机导论、数据库原理与应用为前导课程,为网络程序设计与开发、信息系统与网络安全等方面课程学习提供前期知识支持。

本课程主要包括有:计算机网络及通信基础、计算机网络体系结构与协议、网络操作系统的使用配置、局域网设备与组网配置、综合布线系统的设计、路由器和交换机的配置等内容。

学生需了解网络和通信的基础理论,理解计算机网络各层协议,掌握硬件组网、网络工程设计的基本知识,掌握网络操作系统的使用和配置,掌握路由器和交换机等网络互联设备的配置,并且灵活运用网络软硬件知识解决信息系统运行过程中出现的各种网络问题。

通过本课程的学习,使学生学会将信息管理与信息系统结合,锻炼和提升学生分析问题、概括问题的能力,使学生具有规划组建信息网络基础平台、分析信息网络出现的故障、管理和优化信息网络、部署网络各种应用的能力,进而使学生具有信息系统项目策划能力、信息系统实施组织能力、信息系统运行维护和管理能力,提高学生的综合素质,为培养懂管理懂技术高层次的信息管理类人才做准备。

Course description: This course is information management and information systems professional core courses, introduction to computers, database theory and application of leading courses for network programming and development, information systems and network security and other aspects of knowledge courses provide an initial support.

The course mainly include: computer network and communications infrastructure, computer network architecture and protocols, network operating system using the configuration, LAN equipment and network configuration, cabling system design, configuration of routers and switches content.

Students need to understand the basic theory of network and communication, understanding computer network protocol layers, master of networking hardware, basic knowledge of network engineering design, master the use of the network operating system and configuration, control routers and switches and other networking equipment configuration, and flexible use of network hardware and software knowledge to solve arise during the information systems operation of a variety of network problems.

Through this course, students learn to combine information management and information systems, training and promotion of students to analyze, the ability to generalize the problem, so that students have a plan to form the basis of the information network platform, analysis of network faults occur, manage and optimize information network, the ability to deploy network applications, thereby enabling students to have the ability to project planning information systems, information systems implementation organizational capacity, operation and maintenance of information systems and management capacity, improve the overall quality of students, for the training of skilled management to understand the high level of information management talents to prepare.

编 码: BA05147**Code:**BA05147**课程名称:** 企业资源计划**Course Title:**Enterprise Resource Planning**课程类别:** 专业核心**Course category:**Required Core Course**学 分:** 3**Credit(s):**3**开课单位:** 工商管理学院**Offering College/School:**College of Business Administration

课程描述: 企业资源计划(ERP)是一套集成管理信息系统,主要为制造业企业提供管理支持。本课程主要介绍企业资源计划的基本概念、基本原理、基本方法与应用实践。具体内容
包括:ERP 管理思想与基础理论、ERP 软件系统核心模块功能(包括销售管理、计划管理、采购与库存管理、车间管理、能力计划管理、财务管理)、ERP 项目实施与管理 and ERP 应用案例分析等

Course description: Enterprise Resource Planning (ERP) is an integrated management information system and mainly for manufacturing enterprises to provide management support. This course mainly introduces f the basic concept, the basic principle the basic method and the practice and application of enterprise resource planning, The concrete contents include: ERP management thought and basic theory, The core modules of ERP software system(including sales management, plan management, procurement and inventory management, workshop management, project management, financial management), ERP project implementation and management and ERP application case analysis etc.

编 码: BA05148**Code:**BA05148**课程名称:** 管理会计学**Course Title:**Management Accounting**课程类别:** 专业核心**Course category:**Required Core Course**学 分:** 3**Credit(s):**3**开课单位:** 工商管理学院**Offering College/School:**College of Business Administration

课程描述: 管理会计学是一门新兴的学科,它是为适应企业内部管理上预测、决策、规划、控制和考核的需要而产生的。它是把会计和管理有机地结合起来,为加强企业内部管理,提高经济效益服务。要真正掌握这门学科,不仅需要具备会计学的基础知识,还需要掌握相关的数学、统计学、管理学、经济学、心理学、组织行为学等多门管理知识。通过系统的学习管理会计知识,有助于拓展视野,更新知识结构和借鉴先进的管理经验。

本课程主要讲授现代管理会计的基本理论、基本方法和基本技术。内容主要包括成本性态分析、本量利分析、预测分析、短期经营决策分析及其应用、全面预算管理、标准成本法与差异化分析、责任会计、绩效评价与战略管理会计等内容。

Course description: As a newly developed discipline, management accounting is product of the needs to forecast, make decisions, plan, control and evaluate performance. It integrates accounting and management so as to service the internal management and improve economic efficiency. As a result, it is mix of multi disciplines, and requires knowledge of such courses as mathematics, statistics, management, economics, psychology, and organizational behavior. Since it covers the scope of different disciplines, it is beneficial to the horizon expansion and knowledge updating by learning management accounting.

This course covers the following aspects: cost behavior, CPV analysis, forecasting, short-term decision making, overall budgeting management, standard costing and variance analysis, responsibility accounting, performance evaluation and strategic management accounting.

编 码: CA05011**Code:**CA05011**课程名称:** 中级财务会计**Course Title:**Intermediate Financial Accounting**课程类别:** 专业核心**Course category:**Required Core Course**学 分:** 3**Credit(s):**3**开课单位:** 工商管理学院**Offering College/School:**College of Business Administration

课程描述: 本课程是会计专业的专业核心课程,以《基础会计学》为前导课程,为《高级财务会计学》《成本会计学》《管理会计学》《审计学》等方面课程学习提供理论基础。本课程主要包括财务会计概念框架、会计要素的确认与计量、财务报表的编制等内容,以我国企业会计准则和相关国际惯例为依据,既有财务会计理论的阐述,又有财务会计实务的讲析。学生需了解财务会计学的基本理论和方法,理解相关会计专业术语的概念,掌握会计要素确认的原则和计量的标准、财务报表的编制程序和编制方法,并能将所学理论知识灵活运用于会计实践之中。通过学习本课程,学生学会对财务会计一般业务的分析和处理,获得一定的会计职业判断能力,锻炼和提升对复杂会计业务的分析、处理能力。

Course description: This course is a core curriculum of accounting, leading with the basis of accounting courses for advanced financial accounting, cost accounting, management accounting, auditing, and other aspects of the course provides a theoretical basis. This course includes the conceptual framework of financial accounting, accounting confirmation and measurement, preparation of the financial statements and other information, according to the Chinese accounting standards for business enterprises and relevant international practices, financial accounting theory, and financial accounting practices. Students need to understand the basic theories and methods financial accounting, understanding accounting terminology concepts, mastering accounting recognition principles and measurement standards, coding and presentation of the financial statements, and the flexible application of the theoretical knowledge in practice. Through this course, students learn how to analysis and processing of the financial accounting General business, access to certain accounting occupation judgment ability, exercise and improve analysis on complex accounting and processing capabilities.

编 码: CE05016	Code: CE05016
课程名称: 会计学原理	Course Title: Principles of Accounting
课程类别: 专业核心	Course category: Required Core Course
学 分: 3	Credit(s): 3
开课单位: 工商管理学院	Offering College/School: College of Business Administration
课程描述: 这是一门为全校经管类学生开设的专业基础课, 为进一步学习相关后续专业课程(如财务会计、成本会计、财务管理、管理会计、审计等)打下必不可少的基础。	

本课程主要内容为财务会计的基本方法和基本原理, 具体包括: 设置账户、复式记账、填制和审核凭证、登记账簿、成本计算、财产清查、编制会计报表等。

本课程通过理论和实践教学, 使学生能够掌握会计学的基本概念、基本理论和基本操作技能, 培养学生分析问题、概括问题的能力, 具有比较熟练的运用会计符号和语言反映经济业务的能力, 对实务中企业披露的信息能够理解和利用。

Course description: This is a basic accounting course for finance, economics and management majors who are supposed to have no priority of Accounting-related knowledge. This course builds a foundation for the studying of subsequent major courses, such as financial accounting, cost accounting, financial management, managerial accounting

The course mainly includes basic methods and basic principles of financial accounting. To be specific, it mainly includes accounts, double-entry accounting, recording and checking the business documents and journals, transactions posted to ledgers, cost computing, property checking, and preparing of financial statements.

After teaching this course, it can help students master the basic concepts, basic theories and basic operation techniques of accounting. Through the whole teaching process of fundamental accounting, it can develop students with the ability of analyzing and summarizing the problem of accounting theory and accounting practice, using accounting language to reflect the business transactions, and it can help students to understand and use the accounting information disclosed by the enterprises.

编 码: CE05018**Code:**CE05018**课程名称:** 管理学原理**Course Title:**Principles of Management**课程类别:** 专业核心**Course category:**Required Core Course**学 分:** 3**Credit(s):**3**开课单位:** 工商管理学院**Offering College/School:**College of Business Administration

课程描述: 管理学原理是管理类、经济类专业的核心专业基础课程;同时也是工商管理学院面向全校各专业开设的公共通识教育平台课程,学科具有综合性特点,对于全校各专业学生的通识教育基础和综合素质培养,以及经、管、文类各专业学生的后续专业教育影响重大。课程教学的总体目标是:教授并让学生系统学习和比较全面地掌握管理与管理学的基本原理、基本方法和一般规律,培养学生基本的管理素质和管理绩效观,为构建学生全面知识结构及其后续的专业方向课程学习打下良好基础。基本教学模块包括:导论、计划与决策、组织与变革、领导与激励、控制与质量。

Course description: Principles of Management is a core foundation course for students in management and economics majors and a general education course for all other students in Hunan University provided by the School of Business Administration, and it is comprehensive, which has an important influence for general education foundation, talent quality and following professional study of our students. The goal of the course is systematically teaching the student about the basic principle, method and general rule of management science; raising basic management quality and the managerial perform view for the student; as well as constructing good base for comprehensive knowledge structure and the following major curriculum study of our students. Basic teaching models of management include introduction, planning & decision-making, organization & reform, leadership & incentive, as well as control & quality.

编 码: EN04023**Code:**EN04023**课程名称:** 会计学原理**Course Title:**Basic Accounting**课程类别:** 学类核心**Course category:**Major Survey Course**学 分:** 3**Credit(s):**3**开课单位:** 工商管理学院**Offering College/School:**College of Business Administration

课程描述: 这是一门为全校经管类学生开设的专业基础课,为进一步学习相关后续专业课程(如财务会计、成本会计、财务管理、管理会计、审计等)打下必不可少的基础。

本课程主要内容为财务会计的基本方法和基本原理,具体包括:设置账户、复式记账、填制和审核凭证、登记账簿、成本计算、财产清查、编制会计报表等。

本课程通过理论和实践教学,使学生能够掌握会计学的基本概念、基本理论和基本操作技能,培养学生分析问题、概括问题的能力,具有比较熟练的运用会计符号和语言反映经济业务的能力,对实务中企业披露的信息能够理解和利用。

Course description: This is a basic accounting course for finance,economics and management majors who are supposed to have no priority of Accounting-related knowledge.This course builds a foundation for the studying of subsequent major courses, such as financial accounting, cost accounting, financial management, managerial accounting

The course mainly includes basic methods and basic principles of financial accounting. To be specific, it mainly includes accounts, double-entry accounting, recording and checking the business documents and journals, transactions posted to ledgers, cost computing, property checking, and preparing of financial statements.

After teaching this course, it can help students master the basic concepts, basic theories and basic operation techniques of accounting. Through the whole teaching process of fundamental accounting, it can develop students with the ability of analyzing and summarizing the problem of accounting theory and accounting practice, using accounting language to reflect the business transactions, and it can help students to understand and use the accounting information disclosed by the enterprises.

编 码: ET04009**Code:** ET04009**课程名称:** 基础会计学**Course Title:** Basic Accounting**课程类别:** 学类核心**Course category:** Major Survey Course**学 分:** 3**Credit(s):** 3**开课单位:** 工商管理学院**Offering College/School:** College of Business Administration

课程描述: 这是一门为全校经管类学生开设的专业基础课。主要内容为财务会计的基本方法和基本原理,具体包括:设置账户、复式记账、填制和审核凭证、登记账簿、成本计算、财产清查、编制会计报表等。

通过理论和实践教学,使学生能够掌握会计学的基本概念、基本理论和基本操作技能,为进一步学习相关后续专业课程(如财务会计、成本会计、财务管理、管理会计、审计等)打下必不可少的基础。通过教学,培养学生分析问题、概括问题的能力,具有比较熟练的运用会计符号和语言反映经济业务的能力,对实务中企业披露的信息能够理解和利用。

Course description: This is a basic accounting course for finance, economics and management majors who are supposed to have no priority of Accounting-related knowledge. The course mainly includes basic methods and basic principles of financial accounting. To be specific, it mainly includes accounts, double-entry accounting, recording and checking the business documents and journals, transactions posted to ledgers, cost computing, property checking, and preparing of financial statements.

After teaching this course, it can help students master the basic concepts, basic theories and basic operation techniques of accounting, and build a foundation for the studying of subsequent major courses, such as financial accounting, cost accounting, financial management, managerial accounting. Through the whole teaching process of fundamental accounting, it can develop students with the ability of analyzing and summarizing the problem of accounting theory and accounting practice, using accounting language to reflect the business transactions, and it can help students to understand and use the accounting information disclosed by the enterprises.

编 码: FI04013**Code:**FI04013**课程名称:** 管理学**Course Title:**Management**课程类别:** 学类核心**Course category:**Major Survey Course**学 分:** 3**Credit(s):**3**开课单位:** 工商管理学院**Offering College/School:**College of Business Administration

课程描述: 《管理学》是管理类、经济类专业的核心专业基础课程；同时也是工商管理学院面向全校各专业开设的公共通识教育平台课程，学科具有综合性特点，对于全校各专业学生的通识教育基础和综合素质培养，以及经、管、文类各专业学生的后续专业教育影响重大。课程教学的总体目标是：教授并让学生系统学习和比较全面地掌握管理与管理学的基本原理、基本方法和一般规律，培养学生基本的管理素质和管理绩效观，为构建学生全面知识结构及其后续的专业方向课程学习打下良好基础。基本教学模块包括：导论、计划与决策、组织与变革、领导与激励、控制与质量。

Course description: Management is a core foundation course for students in management and economics majors and a general education course for all other students in Hunan University provided by the School of Business Administration, and it is comprehensive, which has an important influence for general education foundation, talent quality and following professional study of our students. The goal of the course is systematically teaching the student about the basic principle, method and general rule of management science; raising basic management quality and the managerial perform view for the student; as well as constructing good base for comprehensive knowledge structure and the following major curriculum study of our students. Basic teaching models of management include introduction, planning & decision-making, organization & reform, leadership & incentive, as well as control & quality.

编 码: ME04028**Code:**ME04028**课程名称:** 管理学**Course Title:**Management**课程类别:** 学类核心**Course category:**Major Survey Course**学 分:** 2**Credit(s):**2**开课单位:** 工商管理学院**Offering College/School:**College of Business Administration

课程描述: 《管理学》是管理类、经济类专业的核心专业基础课程；同时也是工商管理学院面向全校各专业开设的公共通识教育平台课程，学科具有综合性特点，对于全校各专业学生的通识教育基础和综合素质培养，以及经、管、文类各专业学生的后续专业教育影响重大。课程教学的总体目标是：教授并让学生系统学习和比较全面地掌握管理与管理学的基本原理、基本方法和一般规律，培养学生基本的管理素质和管理绩效观，为构建学生全面知识结构及其后续的专业方向课程学习打下良好基础。基本教学模块包括：导论、计划与决策、组织与变革、领导与激励、控制与质量。

Course description: Management is a core foundation course for students in management and economics majors and a general education course for all other students in Hunan University provided by the School of Business Administration, and it is comprehensive, which has an important influence for general education foundation, talent quality and following professional study of our students. The goal of the course is systematically teaching the student about the basic principle, method and general rule of management science; raising basic management quality and the managerial perform view for the student; as well as constructing good base for comprehensive knowledge structure and the following major curriculum study of our students. Basic teaching models of management include introduction, planning & decision-making, organization & reform, leadership & incentive, as well as control & quality.

编 码: ME04030**Code:**ME04030**课程名称:** 运筹学**Course Title:**Operational Research**课程类别:** 学类核心**Course category:**Major Survey Course**学 分:** 3**Credit(s):**3**开课单位:** 工商管理学院**Offering College/School:**College of Business Administration

课程描述: 运筹学是工商管理学院各专业的学类核心课。该课程以高等数学、线性代数和概率统计为前导课程,应用现有的科学技术知识和数学方法,解决实际中提出的专门问题,为决策者选择最优决策提供定量依据。运筹学理论与方法的应用几乎遍及所有科学技术领域和国民经济的各个部门。本课程主要内容包括线性规划、整数规划、动态规划、图与网络分析、排队论、存贮论、单目标决策等。通过本课程的学习,使学生掌握运筹学的基本概念、基本理论及主要算法,学会如何应用运筹学中的数量方法与模型来分析研究现代企业生产与技术管理以及经营管理决策问题,培养学生运用运筹学的方法去分析和解决实际问题的能力。

Course description: Operational research is the core course of the major of Business Administration Institute.. The curriculum in higher mathematics, linear algebra and probability and statistics for leading courses, the application of existing knowledge of science and technology and mathematical methods, to solve the special problems in the practical, for decision makers to choose optimal decision-making provide quantitative basis. The application of operational research theory and method is almost all the fields of science and technology and the departments of national economy.. The main contents of this course include linear programming, integer programming, dynamic programming, graph and network analysis, queuing theory, inventory theory, single objective decision, etc.. Through the course of learning, to enable students to master tacticians of basic concepts, basic theory and main algorithms and learn how to apply operations research in quantitative methods and models to analyze the modern enterprise production and technology management and management decision problem, training students to use the operational methods to analyze and solve practical problems.

编 码: PA03002**Code:**PA03002**课程名称:** 管理学**Course Title:** Introduction to Management**课程类别:** 学门核心**Course category:** Introductory Major Course**学 分:** 3**Credit(s):** 3**开课单位:** 工商管理学院**Offering College/School:** College of Business Administration

课程描述: 《管理学》是管理类、经济类专业的核心专业基础课程；同时也是工商管理学院面向全校各专业开设的公共通识教育平台课程，学科具有综合性特点，对于全校各专业学生的通识教育基础和综合素质培养，以及经、管、文类各专业学生的后续专业教育影响重大。课程教学的总体目标是：教授并让学生系统学习和比较全面地掌握管理与管理学的基本原理、基本方法和一般规律，培养学生基本的管理素质和管理绩效观，为构建学生全面知识结构及其后续的专业方向课程学习打下良好基础。基本教学模块包括：导论、计划与决策、组织与变革、领导与激励、控制与质量。

Course description: Management is a core foundation course for students in management and economics majors and a general education course for all other students in Hunan University provided by the School of Business Administration, and it is comprehensive, which has an important influence for general education foundation, talent quality and following professional study of our students. The goal of the course is systematically teaching the student about the basic principle, method and general rule of management science; raising basic management quality and the managerial perform view for the student; as well as constructing good base for comprehensive knowledge structure and the following major curriculum study of our students. Basic teaching models of management include introduction, planning & decision-making, organization & reform, leadership & incentive, as well as control & quality.

编 码: CE04051

Code:CE04051

课程名称: 电工电子技术

Course Title:Electrical and Electronic Technology

课程类别: 学类核心

Course category:Major Survey Course

学 分: 3

Credit(s):3

开课单位: 电气与信息工程
学院

Offering College/School:College of Electrical and Information
Engineering

课程描述: 内容暂缺

Course description: There is
no contents at present.



编 码: CH04038

Code:CH04038

课程名称: 电工电子学

Course Title:Electro Techology and Electronic Technique

课程类别: 学类核心

Course category:Major Survey Course

学 分: 3.5

Credit(s):3.5

开课单位: 电气与信息工程
学院

Offering College/School:College of Electrical and Information
Engineering

课程描述: 内容暂缺

Course description: There is no contents at present.



编 码: CH04038

Code:CH04038

课程名称: 电工电子学

Course Title:Electro Techology and Electronic Technique

课程类别: 学门核心

Course category:Introductory Major Course

学 分: 3.5

Credit(s):3.5

开课单位: 电气与信息工程
学院

Offering College/School:College of Electrical and Information
Engineering

课程描述: 内容暂缺

Course description: There is no contents at present.



编 码: EC04011	Code:EC04011
课程名称: 电路	Course Title:Electric Circuit
课程类别: 学类核心	Course category:Major Survey Course
学 分: 4	Credit(s):4
开课单位: 电气与信息工程 学院	Offering College/School:College of Electrical and Information Engineering

课程描述: 本课程是电气类、电子类专业的一门专业基础课。通过该课程的学习, 使学生掌握电路的基本理论、分析计算电路的基本方法和进行实验的初步技能, 并为后继课程准备必要的电路知识。

本课程的任务主要是讨论线性、集中参数、非时变电路的基本理论与一般分析方法, 使学生掌握电路分析的基本概念、基本原理和基本方法, 提高分析电路的思维能力和计算机能力, 以便为学习后继课程奠定必要的基础。通过电路课程的学习, 学生应该熟练掌握电路的理论基础(元件的伏安关系、基尔霍夫电压和电流定律)和各种电路分析技巧, 能计算直流电路、交流电路、二端口电路的电压、电流和功率, 动态电路的过渡过程。

Course description: This course is one of the important compulsory technical basis courses for electrics and electronics oriented specialties, as it has a complete theoretical system, logics and wide engineering background. It is highly effective in the formation of students' ability in scientific thought, and in improving the students' capability in analyzing and solving engineering problems.

This course mainly consists of the basic concepts, theories and methodology for linear circuits. Upon completing the study, the students should understand the fundamental theories of linear circuits, know the basic methods for analyzing and computing circuits problems, and preliminarily master the method of circuit simulations and skill for experiments. The course is made up the following sections: circuit elements and simple resistive circuits, techniques of circuit analysis, operational amplifiers, first order transient circuits, second order transient circuits, sinusoidal steady-state analysis and power calculation, two-port circuits, frequency selective circuits, active filter circuit, balanced three-phase circuits.

编 码: EC04012**Code:**EC04012**课程名称:** 电路实验**Course Title:**Electric Circuit Experiments**课程类别:** 学类核心**Course category:**Major Survey Course**学 分:** 1**Credit(s):**1**开课单位:** 电气与信息工程
学院**Offering College/School:**College of Electrical and Information
Engineering

课程描述: 电路测试技术是一门单独设课的实验课程,任务是传授实验知识、实验方法,培养实验技能。通过实验教学,达到巩固理论知识、提高操作能力、自学能力,以及分析和解决问题的能力之目的。

Course description: Electrical Measurement Techniques is a laboratory course. Its objective is to give the students the basic laboratory knowledge and methods .Through this course, the students can learn the basic electrical laboratory skills ,r einforce the knowledge from the classroom obtain the “hand-on” experience and improve the capability of analyzing and solving the problem

编 码: EC04013	Code:EC04013
课程名称: 电磁场与波	Course Title:Electromagnetic Field and Wave
课程类别: 学类核心	Course category:Major Survey Course
学 分: 3	Credit(s):3
开课单位: 电气与信息工程 学院	Offering College/School:College of Electrical and Information Engineering

课程描述: “电磁场与电磁波”课程是电子信息工程及相近专业的一门本科专业核心课程，以高等数学、普通物理、电路等为前导课程，是电子、通信、微波及生物医学工程等众多学科的基础。随着计算机、通信和微电子等技术的迅速发展，电磁场与其它学科交叉发展、交相辉映，形成了微波集成电路、智能天线、电磁兼容、生物电磁学、材料电磁学、太赫兹技术等新兴科学与技术。电磁场与电磁波是现代通信技术的理论与应用基础，是电子信息专业本科学生知识结构中的重要组成部分。

本课程以场与波为主线，以麦克斯韦方程组为纽带，对知识层次按静态场、边界条件及边值问题的解、时变场、平面波、传输线理论及应用等进行划分。在内容组织结构上，强调前后内容的连贯性，保持理论体系的系统性和完整性。

通过该课程的学习，使学生理解和掌握电磁场与波的相关定理、定律、方程等的基本概念、规律、物理意义及其在科研和工程中的应用；使学生熟悉重要电磁学问题的数学模型的建立过程以及分析方法，训练学生检索、获取信息和通过计算机软件分析电磁场问题的基本技能；培养学生正确的数理思维方法和解决实际问题的能力，使学生学会用“场”的观点去观察、分析和计算简单、典型的电磁场与波的问题，为后续的学习和研究打下坚实的理论基础。

Course description: Based on the basic universal laws of electromagnetic phenomena, this course is to analyze and elaborate the electromagnetic (EM) fields and waves (in principle, EM wave is a dynamic form of EM field) in terms of the basic concepts, principles, mathematical analysis and typical applications. It focuses on EM field and wave theory technology, and introduces the state-of-arts scientific and technological information and achievements. Through this course, students become able to establish the "field" and "wave" concepts as well as to learn the "field" and "circuit" analytical methods, and to observe, analyze and calculate some typical EM problems. Students majoring in electronic engineering should master the contents and trends of the EM theory and technology so as to lay a solid foundation for their following studies and future career.

编 码: EC04014	Code: EC04014
课程名称: 模拟电子技术基础	Course Title: Fundamentals of Analog Electronic Circuits
课程类别: 学类核心	Course category: Major Survey Course
学 分: 4	Credit(s): 4
开课单位: 电气与信息工程 学院	Offering College/School: College of Electrical and Information Engineering

课程描述: 《模拟电子技术基础》是电气工程、自动化、电子信息工程、测控等各专业的技术基础课，是一门工程性、实践性很强的课程。本课程的任务是使学生获得模拟电子技术方面的基本理论、基本知识和基本技能，培养学生分析、解决相关问题的综合能力和工程实践能力，为学习后续课程和掌握模拟电子技术在工程中的应用打好基础。本课程包括的具体内容有：放大器的电路模型、放大器的主要参数、集成运算放大器、二极管及其基本电路、双极结型三极管及放大电路基础、场效应管放大电路、模拟集成电路、反馈放大电路、功率放大电路、信号处理与信号产生电路、直流稳压电源等。

Course description: This is a specialized basic course for majors of electrical engineering, automation engineering, electronic information engineering, measuring & control, etc., and is also a highly engineered, practical course. The study of this course develops students' mastery of the basic concepts and theories of analog electronic and their practical operation skills, cultivates the integrated ability for students to analyze and solve problems in engineering practice, thus laying a solid foundation for their study of follow-up courses and the application of analog electronic technology in engineering. The main contents of this course are the amplifier circuit model, the main parameters of the amplifier, integrated operational amplifiers, diodes and the basic circuit, bipolar junction transistor and amplifier based FET amplifier, analog integrated circuits, feedback amplification circuit, power amplifier, signal processing and signal generation circuits, DC power supplies.

编 码: EC04015

Code:EC04015

课程名称: 模拟电子技术实验

Course Title:Experiments on Analog Circuits

课程类别: 学类核心

Course category:Major Survey Course

学 分: 1

Credit(s):1

开课单位: 电气与信息工程
学院

Offering College/School:College of Electrical and Information
Engineering

课程描述: 模拟电子技术实验是一门单独设课的实验课程,任务是传授实验知识、实验方法,培养实验技能和设计创新的能力。通过实验教学,达到巩固理论知识、提高操作能力、自学能力,以及分析和解决问题的能力目的。基本要求: 1.自行完成实验预习和电路设计,进行实验操作和撰写实验报告。2.掌握常用实验装置的调整与基本的操作技术。3.熟悉电子测试技术基本的实验方法、电路设计方法。4.掌握测量误差的基本概念,具有分析和处理实验数据的能力。

Course description: There is no contents at present.

编 码: EC04016	Code: EC04016
课程名称: 数字电子技术基础	Course Title: Fundamental of Digital Electronic Circuits
课程类别: 学类核心	Course category: Major Survey Course
学 分: 4	Credit(s): 4
开课单位: 电气与信息工程学院	Offering College/School: College of Electrical and Information Engineering

课程描述: 《数字电子技术基础》是电气工程、自动化、电子信息工程、测控等电类各专业的技术基础课，是一门工程性、实践性很强的课程。本课程的任务是使学生获得模数字电子技术方面的基本理论、基本知识和基本技能，培养学生分析、解决相关问题的综合能力和工程实践能力，为学习后续课程和掌握模拟电子技术在工程中的应用打好基础。本课程包括的具体内容有：数字逻辑基础、逻辑代数与硬件描述语言基础、逻辑门电路、组合逻辑电路，锁存器和触发器，时序逻辑电路的分析和设计，存储器、复杂可编程逻辑器和现场可编程门阵列，脉冲波形的变换与产生，模数与数模转换器等。

Course description: This is a specialized basic course for majors of electrical engineering, automation engineering, electronic information engineering, measuring & control, etc., and is also a highly engineered, practical course. The study of this course develops students' mastery of the basic concepts and theories of digital electronic and their practical operation skills, cultivates the integrated ability for students to analyze and solve problems in engineering practice, thus laying a solid foundation for their study of follow-up courses and the application of digital electronic technology in engineering. The main contents of this course are the foundation of digital Logic, Logic algebra and Hardware description language, Logic gates, Combinational Logic circuit, Latch and flip-flop ,Sequential logic circuit analysis and design ,Memory ,Complex programmable logic device and field programmable gate array, A/D and D/A convertor, etc.

编 码: EC04017	Code:EC04017
课程名称: 数字电子技术实验	Course Title:Experiments on Digital Circuits
课程类别: 学类核心	Course category:Major Survey Course
学 分: 1	Credit(s):1
开课单位: 电气与信息工程 学院	Offering College/School:College of Electrical and Information Engineering

课程描述: 《数字电子技术实验》是一门单独设课的实验课程，是电气工程、自动化、电子信息工程、测控等电类各专业的技术基础课，是一门工程性、实践性很强的课程。本实验课程的任务是传授实验知识、实验方法，培养学生的实验技能和设计创新的能力。通过实验教学，达到巩固理论知识、提高操作能力，强化培养学生自主学习能力、工程实践能力和创新精神，为学生学习后续课程和掌握数字电子技术在工程中的应用打好基础。本实验课程包括的具体内容有：门电路功能测试与转换、译码器和编码器、组合逻辑和算术逻辑、触发器、计数器和分频器、单稳态触发器、时基电路多谐振荡器、存储器和 A/D 转换器、综合实验等。

Course description: There is no contents at present.

编 码: EC04018	Code: EC04018
课程名称: 微机原理及其应用	Course Title: Principle and Application of Microcomputer
课程类别: 学类核心	Course category: Major Survey Course
学 分: 4	Credit(s): 4
开课单位: 电气与信息工程学院	Offering College/School: College of Electrical and Information Engineering

课程描述: 本课程分为两大部分,前面部分以 Intel808616 位微处理器为背景,从应用角度系统阐述微机的基本原理;介绍计算机运算基础、微处理器结构、半导体存储器、指令系统及汇编语言程序设计、输入/输出与中断技术、常用 I/O 接口芯片: 8255、8253、8259、16550 等的特点和使用技巧;课程的后面部分以 MCS-51 系列单片机为背景,介绍单片机的硬件结构、指令系统及汇编语言程序设计;以及单片机的接口技术、单片机应用系统设计等。

与本课程配套,安排有单片机应用系统课程综合设计,该课程设计要求学生独立或者 2 人一组完成一个单片机应用系统的硬、软件设计,并通过调试,实现脱机运行,撰写完整的设计报告。

Course description: This course includes two parts, one is Intel 8086 16 bits microprocessor, and the other is MCS-51 single-chip microcomputer. Intel 8086 16 bits microprocessor is the main part of the course. Major topics includes: Arithmetic foundation of computer, structure of microprocessor, semiconductor memory, instruction system, programming of assembly language, input/output and interrupt technology, the characteristic and application technique for usually interfacing chips: 8255、8253、8259、16550. The main topics of MCS-51 single-chip microcomputer are listed as follows: hardware structure of single-chip microprocessor, instruction system of assembly language and program design method, interface technology as well as the design examples of microprocessor application system.

Comprehensive design of microcomputer application system with this course is arranged which students need complete independently or two people from a group. In this comprehensive design, it is required to complete the design of single-chip microcomputer application system and a whole design report.

编 码: EC04019

Code:EC04019

课程名称: 微机原理及其应
用实验

Course Title: Experiments on Principle and Application of
Microcomputer

课程类别: 学类核心

Course category: Major Survey Course

学 分: 1

Credit(s): 1

开课单位: 电气与信息工程
学院

Offering College/School: College of Electrical and Information
Engineering

课程描述: 本实验是《微机原理及接口技术》课程的重要组成部分。通过实验使学生更好地理解接口技术的系统理论和基本原理, 增强动手设计能力。

Course description: This experiment "microcomputer principle and interface technology" is an important part of the course. Through the experiment makes students better understand the interface technology, the system theory and the basic principle of design ability.



编 码: EC04023**Code:** EC04023**课程名称:** 自动控制原理**Course Title:** Principles of Automatic Control**课程类别:** 学类核心**Course category:** Major Survey Course**学 分:** 4**Credit(s):** 4**开课单位:** 电气与信息工程
学院**Offering College/School:** College of Electrical and Information
Engineering

课程描述: “自动控制原理”是电气信息类专业本科生的一门核心基础课,通过课程教学,使学生能熟练地掌握经典自动控制的基本概念;控制系统的数学模型及结构图和信号流图的表示方法;线性控制系统的时域分析法、根轨迹法、频域分析法、以及综合校正设计、线性离散系统分析及数字校正等方法,培养学生结合工程背景对各类控制系统进行理论分析与综合设计的能力。

Course description: The course deals with introduction to design of feedback control systems which mainly covers root locus method, nyquist criterion, frequency-domain design. It helps students to obtain a basic understanding of feedback control systems theory, to obtain the ability to perform analysis and design of linear feedback control systems, using both time and frequency domain techniques. and to gain hands on experience analyzing and designing controls for application system on site.

编 码: EC04024	Code:EC04024
课程名称: 信号与系统	Course Title:Signals and systems
课程类别: 学类核心	Course category:Major Survey Course
学 分: 3	Credit(s):3
开课单位: 电气与信息工程 学院	Offering College/School:College of Electrical and Information Engineering

课程描述: “信号与系统”是电气与电子信息类各专业本科生必修的重要主干课程。该课程主要研究确知信号的特性,线性时不变系统的特性,信号通过线性时不变系统的基本分析方法,信号与系统分析方法在某些重要工程领域的应用,以及数字信号处理的基础知识。通过本课程的学习,使学生掌握信号分析、线性系统分析及数字信号处理的基本理论与分析方法,并对这些理论与方法在工程中的某些应用有初步了解。为适应信息科学技术的飞速发展及在相关专业领域的深入学习打下坚实的基础。同时,通过习题和实验,学生应在分析问题与解决问题的能力及实践技能方面有所提高。

Course description: This course covers the techniques of modern digital signal processing that are fundamental to a wide variety of application areas. We will review the mathematical basis of discrete-time signal analysis, discuss the theory and implementation of fast Fourier transform algorithms, and discuss the design and implementation of analog and digital filters. This course will make extensive use of MATLAB as an analysis, design, and visualization tool. The student will: Learn the basics of signal processing systems, including time domain and frequency domain; Learn how to analyze and design general discrete time systems; Learn how to use the Discrete Fourier Transform; Learn how to design analog and digital filters.

编 码: EC04025	Code:EC04025
课程名称: 传感与检测技术	Course Title:Sensor and Detector Technology
课程类别: 学类核心	Course category:Major Survey Course
学 分: 3	Credit(s):3
开课单位: 电气与信息工程 学院	Offering College/School:College of Electrical and Information Engineering

课程描述: 传感与检测技术是一门综合性课程,是自动检测技术及自动转换技术的总称,是信息技术的重要组成部分,是在物理学、电工学、电子学、计算机、自动控制等知识体系基础上开设的一门重要专业课程。它主要研究信息提取与处理的理论、方法及技术。课程通过讲述传感器技术、干扰技术、信号调理电路、信号转换电路等内容,使学生了解传感与检测技术基本知识,掌握检测系统各组成部分工作原理,具有合理选择工业常用传感器以及设计其专用信号转换调理电路的能力。

通过本课程的学习,培养学生具备自主设计和搭建检测系统的能力。要求学生了解传感与检测技术基本概念、数据处理方法和传感器的一般知识,学会几种常用传感器及其信号调理电路的工作原理及具体应用,掌握几种常用的信号转换电路的工作原理及具体应用,掌握基于 PC 机或单片机技术的检测系统接口电路设计方法。

Course description: Sensor and detector technology is a comprehensive course, it is a general term for automatic detection technology and automatic conversion technology, it is an important part of information technology, and it is an important professional curriculum based on the knowledge hierarchy of physics, electrical engineering, electronics, computer, automatic control, etc. It focuses on the research of the theory, method and technology of information extraction and processing. This curriculum makes students understand the basic knowledge of sensor and detector technology, master the operating principle of the detection system, and possess the capacity to make appropriate choices about industrial common sensors and design its dedicated signal conversion conditioning circuit by expounding the contents of sensor technology, interference technology, signal conditioning circuit, signal conversion circuit, etc..

By studying the course, students are trained to possess the capability of design and build the test system independently. It requires students to understand the basic concepts of sensor and detector technology, the methods of data processing as well as the general knowledge of sensors, and learn the operating principles and specific applications of some of the common sensors and signal conditioning circuit, master the operating principles and specific applications of several commonly used signal conversion circuit, and master the design method of detection system interface circuit based on PC or single chip microcomputer technology.

编 码: EC05003	Code: EC05003
课程名称: 电力电子技术基础	Course Title: Fundamentals of Power Electronics
课程类别: 学类核心	Course category: Major Survey Course
学 分: 3	Credit(s): 3
开课单位: 电气与信息工程学院	Offering College/School: College of Electrical and Information Engineering

课程描述: “电力电子技术”是采用电力半导体开关电路和电子电路控制系统、基于自动控制理论和控制策略、实现电能的变换与控制的科学技术。“电力电子技术”又称为“电力电子学”，电力电子学是电力技术、电子技术和现代控制技术三者交叉形成的学科。

“电力电子技术基础”课程是电气工程及其自动化专业、自动化专业本科生必修的学科基础课程，本课程的目的和任务是使学生熟悉各种电力电子器件的特性和使用方法；掌握各种电力电子电路的结构、工作原理、控制方法、设计计算方法及实验技能；熟悉各种电力电子装置的应用范围及技术经济指标。同时，为相关的后续专业课程打好基础。

Course description: "Power electronic technology",also known as power electronics which is formed by the intersection of electric power technology, electronic technology and modern control technology. It is a subject of realizing the conversion and control of power energy by adopting switching circuit of power semiconductor and automatic control theory and strategy.

"Fundamentals of Power Electronics" is the basic compulsory curriculum of the undergraduate of "electrical engineering and automation" and "automation" professional. It aims to enable students to be familiar with the characteristics of power electronics devices and using it, and train them with the ability to master the framework ,working principle, control, design and calculation method of various power electronics, and also the experimental skills. Meanwhile, the course lays a good foundation for the related follow-up professional courses.

编 码: EC05007	Code:EC05007
课程名称: 过程控制与仪表	Course Title:Process Control and Instrumentation
课程类别: 专业核心	Course category:Required Core Course
学 分: 3	Credit(s):3
开课单位: 电气与信息工程 学院	Offering College/School:College of Electrical and Information Engineering

课程描述: “过程控制与仪表”是自动化专业的一门专业核心课，本课程主要包括过程建模方法、过程控制方法、过程控制仪表及过程计算机控制等内容。在学习这门课程前，学生需了解掌握自动控制技术领域的基本概念、基本规律，并能灵活应用自动控制系统的基本分析与设计方法。通过本课程的教学，学生将熟练掌握以下内容：过程控制仪表的组成、原理、工程选用方法；过程对象的建模方法；常规过程控制系统的基本控制方法与工程设计。

Course description: This course gives an introduction to basic concepts and system design about process control and instruments. Coverage includes: Fundamentals of process control and instrumentation such as objectives, variables, and block diagrams of process control; Methodologies for developing dynamic models of processes. Students should have basic knowledge of automatic control as foundation. At the end of the course, students not only can understand fundamentals of process control and instrumentation; but also can provide flexible application.

编 码: EC05012	Code:EC05012
课程名称: 通信电路	Course Title:Communication Circuits
课程类别: 专业核心	Course category:Required Core Course
学 分: 4	Credit(s):4
开课单位: 电气与信息工程 学院	Offering College/School:College of Electrical and Information Engineering

课程描述: 通信电路是电子信息工程专业本科生专业核心课。以电路、模拟电子技术基础为前导课程,为电路设计和通信方面课程学习提供坚实基础。本课程主要包括功率电子线路,谐振功率放大器,正弦波振荡器,振幅调制、解调与混频电路,角度调制与解调电路和反馈控制电路等内容。学生需了解通信系统的基本组成、非线性电路的特点,理解反馈控制电路的概念,掌握功率放大器的工作原理、丙类谐振功率放大器的原理与性能特点、常见正弦波振荡器的组成与振荡过程分析、典型调制解调电路的组成和工作原理、锁相环的基本原理和性能特征,并能灵活运用所学知识进行基本通信电路的分析和设计。通过学习本课程,学生学会通信电路的分析方法,获得从事工程技术所需的通信电路相关知识,锻炼和提升对电路分析和电子电路系统设计的能力。

Course description: Communication Circuits is a required core courses of electronic and information engineering. Its preliminary courses are Electric Circuit and Fundamental of Analog Electronic Circuits .This course provides the basis for some courses of circuits design and communication ,it includes power electronic circuits ,resonate power amplifier, oscillator , modulation and demodulation circuits of amplitude and angle, feedback control circuits. Students should understand the structure of the communication system, the feature of the nonlinear circuits and the concept of the feedback control circuits, grasp the working principles of the power amplifier, the principles and the features of the resonate power amplifier, the structure and oscillating process of the sine oscillator, the structures and principles of the typical modulation and demodulation circuits, the structure and performance of phase lock loop, and they should analyze and design some basic communication circuits. Through the study of this course, students can master the analysis method of the communication circuits basic features, obtain some communication circuits knowledge needed by the engineering , train and improve the ability of the circuits analyzing and the circuit systems design .

编 码: EC05013	Code:EC05013
课程名称: 通信原理	Course Title: Principle of Communications
课程类别: 专业核心	Course category: Required Core Course
学 分: 4	Credit(s): 4
开课单位: 电气与信息工程 学院	Offering College/School: College of Electrical and Information Engineering

课程描述: “通信原理”课程是电子信息工程和通信类专业的一门重要的专业理论课程，它系统讲述了通信系统各个组成部分的基础理论和基本原理。通过本课程的教学，使学生掌握更多的现代通信技术和理论，其中包括模拟通信和数字通信；掌握模拟调制的原理与方法，抗噪声性能的分析模型及方法；掌握模拟信号的波形编码，分析模拟信号转化为数字信号的过程；了解时分复用的原理及数字电话的应用体制；掌握数字信号的基带和调制传输。学生在完成本课程学习后，能系统掌握现代通信系统的基本理论，为后续的各种通信技术课程奠定基础。

Course description: “Principals of Communication” is a basilica curricula for electronic engineering and communication majors, in which essential theory and principal of communication system are included. Through this course, student will handle theory and technology of modern communication, which basically contain analog and digital communication, principal of analog modulation, theory of anti-noise performance analysis, waveform coding, principal of analogy to digital transform, baseband and modulated digital signal transmission, et al, and in the meanwhile, as fundamental knowledge for follow up course studying.

编 码: EC05014	Code:EC05014
课程名称: 数字信号处理	Course Title:Digital Signal Processing
课程类别: 专业核心	Course category:Required Core Course
学 分: 3	Credit(s):3
开课单位: 电气与信息工程 学院	Offering College/School:College of Electrical and Information Engineering

课程描述: 数字信号处理是电子信息工程专业的一个专业核心课程,它相对于模拟信号处理有一系列优点,在许多领域已经取代了模拟信号处理,并已成为一门具有系统的基础理论,应用技术,和广泛应用的学科。目前,半导体和计算机技术高速发展已渗透到各个领域,在信号处理中,数字信号处理技术已显示出明显的优势。本课程以《信号与系统》为前导课程,为视频图像处理、通信技术以及嵌入式系统等方面课程的学习提供基础知识和理论背景。本课程包括数字信号处理的基本概念、离散傅里叶变换、快速傅里叶变换、数字滤波器等内容,学生要从各个方面了解有关数字信号处理技术的内容,深入理解数字信号处理的内涵和实质,掌握数字信号处理的基本方法和实验手段,并能灵活运用数字信号处理的思维思考工程中的问题。通过本课程学习,学生学会对信号的时频域分析方法,掌握基本的数字滤波器设计方法,锻炼和提升数学仿真和建模的能力,为将来的工作打下坚实的基础。

Course description: The digital signal processing (DSP) is an important discipline developed with the device of the semiconductor and computer technology developing. It has more advantages than the analog signal processing in many application fields, where it has already replaced the analog signal processing technology. In addition, the DSP technology has systematic basic theory, application technology at present. At present, In view of the high-speed development of the semiconductor and computer technology which has already permeated through each field, the digital signal processing technology demonstrates obvious superiority in the signal processing. As a specialized student, he should master the content about the digital signal processing technology in an all-round way, and lay a firm foundation for the work in the future. So the course occupies more and more important position.

编 码: EC05015**Code:**EC05015**课程名称:** 测控电路**Course Title:** Measurement and Control Circuit**课程类别:** 专业核心**Course category:** Required Core Course**学 分:** 4**Credit(s):**4**开课单位:** 电气与信息工程
学院**Offering College/School:** College of Electrical and Information
Engineering

课程描述: 本课程是测控技术及仪器专业的专业核心课。通过本课程学习, 学生能熟悉运用电子技术解决测量与控制中的任务。本课程不仅是电子技术课程的深化与提高, 更着重讲解如何在电子技术与测量、控制之间架起一座桥梁, 实现二者之间的有机结合, 使学生学会在测量和控制中运用电子技术, 围绕精、快、灵和测控任务的其它要求选用电路、设计电路。

Course description: This course is a professional core course of Detecting and Control Technology and Instrument. Through this course, students can be familiar with the use of electronic technology to solve measurement & control tasks. This course is not only to deepen and improve electronic technology curriculum focuses, more on explaining how to bridge the gap between electronic technology measurement and control and to achieve the organic combination between them. So that students can learn how to use electronic technology in the measurement & control, around the spirit of accurate, rapid, sensitive and other requirements of the measurement & control tasks to select the circuit and design the circuit.

编 码: EC05016**Code:**EC05016**课程名称:** 电气测量技术**Course Title:**Electrical measurement technology**课程类别:** 专业核心**Course category:**Required Core Course**学 分:** 4**Credit(s):**4**开课单位:** 电气与信息工程
学院**Offering College/School:**College of Electrical and Information
Engineering

课程描述: 本课程作为测控技术及仪器专业的核心课程,一方面将涉及电气参数测量的基本理论与方法,另一方面将测量原理与测试实现及仪器设计有机结合,为本专业学生从事电气参数检测、电气测量仪器仪表研发与设计奠定坚实的理论和实践基础。

Course description: This course is a core and professional courses for the major of measurement and control technology and instrumentations. This course will involve basic theories and methods to measure the electrical parameters. Moreover, it will combine the implementation, test, and measurement principle and instrument design together. It can improve the ability of the electrical parameter detection, electrical measuring instruments R & D and design, which will provide a solid foundation of theory and practice for the major of measurement and control technology and instrumentations.

编 码: EC05017	Code:EC05017
课程名称: 电机学(上)	Course Title:Electrical Machinery (I)
课程类别: 专业核心	Course category:Required Core Course
学 分: 3	Credit(s):3
开课单位: 电气与信息工程 学院	Offering College/School:College of Electrical and Information Engineering

课程描述: 本课程是电气工程及其自动化专业一门重要的专业基础课, 本课程是“大学物理”和“电路分析”等基础课的后续课程, 同时又为后续专业课的学习准备必要的基础知识。本课程的理论性与实践性都很强, 通过本课程学习, 使学生掌握直流电机和变压器的基本结构、工作原理、分析方法及其主要特性; 掌握电力拖动系统中直流电动机的起动、调速和制动方法及有关计算方法; 合理地选择和使用电动机; 掌握电力系统中三相变压器的联接组别号的辨别、变压器的并联运行条件; 合理地选择和使用三相变压器; 掌握变压器的不对称运行; 掌握电压和电流互感器的特点; 为从事专业技术工作打下坚实的基础。配合本课程的电机学(一)开设的电机实验, 主要是为了通过实验教学, 加深电气工程学生对电机学基础知识和基本理论的进一步理解和巩固。本课程在教学内容方面不仅重视基本理论的学习, 也十分重视基本实验方法的学习; 在培养实践能力方面着重基础设计和解决实际工程问题的综合能力。

Course description: The course is one of the most important courses of electrical engineering and automation. It is the subsequent course of “College Physics” and “Circuit Analysis”, simultaneously prepares the basic necessary knowledge for studying the subsequent Required Core Course, simultaneously prepares the basic necessary knowledge for studying the subsequent Required Core Course. This course has strong theory and practice, by studying the course, the students will master the following knowledge: 1) the basic structure, work principle, analysis method and main features of DC motor and transformer; 2) the starting method, speed regulation method, braking method and calculation method of DC motor in electrical drive system; 3) choose and use motor reasonably; 4) distinguish symbols in link groups of three-phase transformer, parallel operation condition of transformer, choose and use three-phase transformer reasonably; 5) asymmetric operation of transformer; 6) the characteristic of PT and CT. This course lays a solid foundation for future technical work.

编 码: EC05018	Code:EC05018
课程名称: 电机学(下)	Course Title:Electrical machinery (II)
课程类别: 专业核心	Course category:Required Core Course
学 分: 4	Credit(s):4
开课单位: 电气与信息工程 学院	Offering College/School:College of Electrical and Information Engineering

课程描述: 电机学是电气工程及其自动化专业的技术基础课, 它既阐述基本概念和理论, 又与工程实际结合密切, 是从理论课学习过渡到专业课学习的重要桥梁, 在本专业教学中占有十分重要的地位。电机学(下)以交流电机为研究对象, 通过课程的讲授使学生获得交流电机绕组、异步电机和同步电机的基本概念、基础理论和基本应用技能, 为学习后续多门专业课做好准备, 也为今后从事有关的专业工作打下理论基础。

Course description: Electrical Machinery is an important technical basic course for Electrical Engineering and Automation students. As a bridge between theoretical principles and professional knowledge, electrical Machinery not only explains basic concepts and theories, but also relates to engineering applications closely. Focusing on AC motors, this course enables students to get fundamental theories, basic knowledge and application skills of AC motors windings, asynchronous machines and synchronous machines, as well as prepares them for specialized courses and for the future work.

编 码: EC05019**Code:**EC05019**课程名称:** 电力系统基础**Course Title:** Fundamentals of Power System**课程类别:** 专业核心**Course category:** Required Core Course**学 分:** 4**Credit(s):** 4**开课单位:** 电气与信息工程
学院**Offering College/School:** College of Electrical and Information
Engineering

课程描述: “电力系统基础”是电气工程及其自动化专业的专业必修课，在专业课程体系中具有承上启下的基础性地位。通过本课程的学习，建立完整的电力系统的基本概念，牢固掌握电力系统正常运行状况分析的基本原理和基本计算方法，掌握电力系统稳态运行分析与控制的基本理论。

Course description: The course is required of Electrical Engineering and Its Automation. It is the foundation of all other specialized courses, and establishes the basic concepts, fundamental principle and elementary calculating methods to researching the normal operation state of electric power systems.

编 码: EC05020	Code: EC05020
课程名称: 计算机控制技术	Course Title: Computer Control Technology
课程类别: 专业核心	Course category: Required Core Course
学 分: 4	Credit(s): 4
开课单位: 电气与信息工程学院	Offering College/School: College of Electrical and Information Engineering

课程描述: 本课程是自动化专业核心课程,以自动控制原理、微机原理及其应用为前导课程。本课程全面系统讲述了计算机在工业过程控制中的各种应用技术,包括计算机控制系统的组成及分类、A/D 和 D/A 转换、数据采集、键盘处理、LED 和 LCD 显示、报警技术、电动机控制、步进电机控制、总线接口、数字滤波、PID 控制、直接数字控制和模糊控制等内容。课程采用硬件和软件相结合的方式进行讲述,综合实际工程中的应用案例,有意识培养和建立学生的将所学的模拟数字电路和微机原理等硬件知识,以及自动控制原理和编程等算法软件知识综合应用的思维能力,使学生能完成从控制过程分析到控制系统的总体设计、详细设计和实现的完整过程。通过本课程的学习,使学生能对大学四年专业课程有综合应用的总结。

Course description: Computer control technology is a technology developed in order to meet the needs of this field. This course systematically describes the application of a variety of computer technology in industrial process control. It is the core course in the professional field of automation control. The automation control theory course and micro computer theory course must be studied before this course. The Course includes the composition and classification of computer control system, A/D and D/A conversion, data acquisition, keyboard processing, LED and LCD display, alarm technology, the motor control, stepper motor control, bus interface, digital filtering, PID control, direct digital control and fuzzy control, etc..The course will be told about by combining the hardware and software knowledge, while several project examples will be showed in the course. The purpose of this course teaching is consciously to train and establish the thinking ability of students to how to use the hardware knowledge such as analogy and digit circuit course and micro computer theory course, and how to use the software knowledge such the automatic control course and programming course . It also enable the students to complete the whole process which from the control procedure analysis, the control system overall design and detail design to programming the control algorithm. Through this course studying, it can make the students to more understand the many courses they have studied in the past four years and know how to use them.

编 码: EC05021	Code:EC05021
课程名称: 电机与拖动基础	Course Title:Basis of Electrical Machinery and Drag
课程类别: 专业核心	Course category:Required Core Course
学 分: 3	Credit(s):3
开课单位: 电气与信息工程 学院	Offering College/School:College of Electrical and Information Engineering

课程描述: 《电机及拖动基础》是“自动化”专业的一门重要专业核心课程。以《大学物理》、《电力电子技术》为前导课程，为《运动控制》专业课程打下良好的基础。本课程包括交直流电机、控制电机及变压器的基本结构与工作原理以及电机拖动系统的运行原理及性能等内容。需了解交直流电机起动的原理和方法，熟悉变压器和三相异步电动机转化为等效电路的基本原理，掌握交直流电动机的机械特性和调速的基本原理以及电机的工作原理和控制方法，并能灵活运用所学过的基础知识和专业知识，分析电机运行状态，培养和提高使用电机、控制电机和选择电机以及解决电气拖动系统工程问题的能力。为学生学习后续课程和以及从事与本专业有关的工程技术和科学研究打下必要的基础。

Course description: 《Fundamentals of Electrical Machines and Drives》is one of the most significant core courses in the "Automation" course. This course is based on 《College Physics》 and 《Power Electronics》, which builds a solid foundation for 《Motion Control》. The course includes the basic structure and working principles of AC and DC motors、control motors and transformers, as well as the theory and functions of the electrical machines and drives. Students need to understand the principles and methods of the start on AC and DC motors, be familiar with the basic theory of how to turn transformers and three-phase asynchronous motor in to an equivalent circuit. Students also need to handle the basic mechanical characteristics principles of AC and DC motor control, using the learned basic knowledge and expertise flexibly to analyze the motor running state, cultivating and improving the skills of motor control and selecting the motor, so that they can finally cultivate the skills of solving electrical drive system engineering problem. This course can lay the necessary foundation for students who need to study and follow-up courses and engage in the profession of engineering and scientific research.

编 码: EI04007**Code:** EI04007**课程名称:** 电路实验**Course Title:** Circuit Experiment**课程类别:** 学类核心**Course category:** Major Survey Course**学 分:** 1**Credit(s):** 1**开课单位:** 电气与信息工程
学院**Offering College/School:** College of Electrical and Information
Engineering

课程描述: 电路测试技术是一门单独设课的实验课程,任务是传授实验知识、实验方法,培养实验技能。通过实验教学,达到巩固理论知识、提高操作能力、自学能力,以及分析和解决问题的能力之目的。

Course description: Electrical Measurement Techniques is a laboratory course. Its objective is to give the students the basic laboratory knowledge and methods .Through this course, the students can learn the basic electrical laboratory skills ,r einforce the knowledge from the classroom obtain the “hand-on” experience and improve the capability of analyzing and solving the problem

编 码: GE02009	Code:GE02009
课程名称: 电工技术	Course Title:Electrical Engineering
课程类别: 学类核心	Course category:Major Survey Course
学 分: 2	Credit(s):2
开课单位: 电气与信息工程 学院	Offering College/School:College of Electrical and Information Engineering

课程描述: 本课程是面向非电类理工科各专业学生开设的一门技术基础课。学生通过本课程的学习,掌握电工技术方面的基本理论、基本知识和基本技能,了解电工技术与其他学科领域的相互关系,为学习后续课程以及从事与本专业有关的工程技术等工作奠定一定的基础,并具有将电工技术应用于本专业和发展本专业的一定能力。主要内容为电路理论和电机及控制,具体包括:电路基本概念、电路分析方法、正弦交流电路、三相交流电路、电路的时域响应、磁路和变压器、电动机、继电接触器控制等内容。

Course description: This is a basic technique course for students majored in non-electrical, aiming at the mastery of the basic theories and the development of operation techniques in electrical engineering. The study of this course lets the students know the relationship between electrical technology and their majors and develops the students' ability to apply electrical technology into their majors. The main contents of this course are the electric circuit theories, electric devices and motor control, including basic concepts of electric circuit, methods of circuit analysis, sinusoidal alternating current circuit, three-phase circuit, time domain response of circuit, magnetic circuit and transformers, motors and relay contactor control, etc.

编 码: GE02010	Code:GE02010
课程名称: 电子技术	Course Title:Electronics Technology
课程类别: 学类核心	Course category:Major Survey Course
学 分: 2	Credit(s):2
开课单位: 电气与信息工程 学院	Offering College/School:College of Electrical and Information Engineering

课程描述: 本课程是为非电类理工科各专业学生开设的一门技术基础课, 通过本课程的教学使学生能够掌握电子技术方面的基本知识和基本技能, 对电子技术与其他学科领域的相互关系有所了解, 为学习后续课程以及从事与本专业有关的工程技术等工作奠定一定的基础, 并具有将电子技术应用于本专业和发展本专业的一定能力。主要内容为模拟电子技术和数字电子技术, 具体包括: 半导体器件、基本放大电路、集成运算放大器、直流稳压电源、门电路及组合逻辑电路、触发器和时序逻辑电路、模拟量和数字量的转换等内容。

Course description: This is a basic technique course for majors of non-electrical, aiming at the students' mastery of the basic knowledge and the development of their operation techniques in electronic technology. The study of this course lets the students know the relationship between electronic technology and their majors and develops the students' ability to apply electronic technology into their majors. The main contents of this course are analog electronic technology and digital electronic technology, including semiconductor devices, basic amplifying circuit, integrated operational amplifier, direct current voltage-regulating power supply, gate circuit and combinational logic circuit, flip-flop and sequential logic circuit, analog-digital converter and digital-analog converter.

编 码: GE02053

Code:GE02053

课程名称: 电工电子实验

Course Title:Electro Techology and Electronic Technique Experiment

课程类别: 学类核心

Course category:Major Survey Course

学 分: 1

Credit(s):1

开课单位: 电气与信息工程
学院

Offering College/School:College of Electrical and Information
Engineering

课程描述: 内容暂缺

Course description: There is no contents at present.



编 码: GE02053

Code:GE02053

课程名称: 电工电子实验

Course Title:Electronic Experiment

课程类别: 学门核心

Course category:Introductory Major Course

学 分: 1

Credit(s):1

开课单位: 电气与信息工程
学院

Offering College/School:College of Electrical and Information
Engineering

课程描述: 内容暂缺

Course description: There is no contents at present.



编 码: IA05008	Code:IA05008
课程名称: 误差理论与数据处理	Course Title:Error Theory & Data Processing
	Course category:Required Core Course
课程类别: 专业核心	Credit(s):3
学 分: 3	Offering College/School:College of Electrical and Information Engineering
开课单位: 电气与信息工程学院	

课程描述: 《误差理论与数据处理》是测控技术及仪器专业的核心课程,以《科学与工程计算及应用》、《高等数学》为前导课程,为电气测量方面课程学习提供理论和实践基础。

本课程主要包括误差的基本性质与处理、误差的合成与分配、测量不确定度、线性参数的最小二乘法处理、回归分析、动态测试与数据处理基本方法等,学生需要了解误差来源及性质,理解误差合成与分配方法,掌握测量不确定度评定方法,并能灵活运用误差理论进行测控系统设计。

通过本课程的学习,使学生初步掌握误差理论域数据处理的基本概念和基本分析方法,初步认识机械量、几何量和各种有关物理量测试技术中的静态与动态测量的误差理论与数据处理,正确认识误差的性质,恰当处理测量和实验数据,正确组织实验过程,以消除或减小误差,在最经济的条件下,得到最理想的结果。

Course description: 《Error Theory & Data Processing》is a fundamental course of the major of Measurement Control Technology and Instrument.

This course mainly includes the basic properties of error, the synthesis and distribution of error, the least square method of measurement, regression analysis, dynamic test and data processing. The students need to understand the error sources and properties.

This course gives an introduction to basic concepts and algorithms of error theory and data processing that are commonly used in scientific and engineering measurement, as well as their implementations with computer language. The topics include: error analysis, static and dynamic measurement error, measurement uncertainty, and least square regression. Through the course and experiments, the students are expected to have abilities to find and decrease the measurement error in practical engineering applications.

编 码: ME04026

Code:ME04026

课程名称: 电工电子学

Course Title:Electrotechnics and Electronics

课程类别: 学类核心

Course category:Major Survey Course

学 分: 3

Credit(s):3

开课单位: 电气与信息工程
学院

Offering College/School:College of Electrical and Information
Engineering

课程描述: 内容暂缺

Course description: There is no contents at present.



编 码: PH04005

Code:PH04005

课程名称: 电子技术实验

Course Title:Electronic Experiment

课程类别: 学类核心

Course category:Major Survey Course

学 分: 2

Credit(s):2

开课单位: 电气与信息工程
学院

Offering College/School:College of Electrical and Information
Engineering

课程描述: 内容暂缺

Course description: There is no contents at present



编 码: CS04001	Code:CS04001
课程名称: 离散数学	Course Title:Discrete Mathematics
课程类别: 学类核心	Course category:Major Survey Course
学 分: 4	Credit(s):4
开课单位: 信息科学与工程 学院	Offering College/School:College of Computer Science and Electronic Engineering

课程描述: 本课程是计算机科学与技术、信息安全、智能科学与技术专业的基础必修课，其课程目标是：

- 1.掌握离散数学四大核心内容（集合论、数理逻辑、代数结构、图论）的基本概念、基本理论、基本方法，训练提高学生的概括抽象能力、逻辑思维能力、归纳构造能力，培养学生严谨、完整、规范的科学态度和学习思维习惯。
- 2.通过课程实验的训练，应用所学理论锻炼学生在数学建模、设计算法、编写程序和调试方面的能力。

Course description: Discrete Mathematics is a basic core course for majors of computer science and technology, computer communication, information security and intelligence science and technology. Its course goal is as follows.

1. Require students to master basic concepts, basic principles, basic methods and proving skills of the discrete mathematics.
2. Designed to develop the students' basic mathematical modeling ability and enhance programming ability.

编 码: CS04002	Code:CS04002
课程名称: 数据结构	Course Title:Data Structure
课程类别: 学类核心	Course category:Major Survey Course
学 分: 4	Credit(s):4
开课单位: 信息科学与工程 学院	Offering College/School:College of Computer Science and Electronic Engineering

课程描述: 数据结构是计算机科学与技术类的核心课程，也是一门实践性很强的专业技术基础课。数据结构课程介绍基本数据结构、基本算法分析技术、排序、检索和索引技术。通过本课程的学习，让学生掌握线性表、栈、队列、二叉树、树和图等常用的基本数据结构；并介绍了各种典型数据结构的应用；掌握常用的排序、检索算法及其时间、空间代价；学会分析计算机处理的数据对象的特性，能够选择并设计合适的数据结构及相应的算法，初步掌握算法的时间和空间代价的分析方法。

Course description: “Data Structures” is one of the most important core courses in Computer Science and technology. It is also a specialized basic course requiring much practice. This course introduces fundamental data structures, basic techniques for algorithm analysis as well as data sorting, searching and indexing. On a solid basis of the fundamental theory, the students will analyze the problems using problem, data and algorithm abstraction. Making a tradeoff between space and time complexity, the students will learn how to organize data reasonably, design efficient and effective algorithms, and implement high quality programs, so that they can solve real-world complex problems. After studying the course, the students’ ability of abstract thinking and problem solving should have improved considerably. Their programming skills and the quality of their codes would have increased as well. After studying this course, students should be well prepared for further study, engineering and research in computer related areas.

编 码: CS04007	Code:CS04007
课程名称: 操作系统	Course Title:Operating System
课程类别: 专业核心	Course category:Required Core Course
学 分: 4	Credit(s):4
开课单位: 信息科学与工程 学院	Offering College/School:College of Computer Science and Electronic Engineering

课程描述: 本课程是计算机科学与技术专业的专业核心课。通过系统讲授操作系统的基本概念、原理和设计方法,达到如下教学目标:1.使学生能够掌握操作系统的基本概念、原理、内部结构、设计开发技术。2.培养学生的基本系统能力,提高学生对计算机系统的整体理解,为学生学习后续相关课程打下必要的知识基础。3.通过课程实验和实例分析以及简单操作系统的设计,锻炼学生的操作系统分析、设计和实现能力。

Course description: This is a kernel course for major of computer science and technology. The object of this course includes 1. The study of this course aims at the students' mastery of the operating systems' basic concepts, principles, internal structures, and design & development technologies. 2. The study of the course develops the students' basic system ability and promotes their overall understanding to computer systems, thus laying a solid prerequisite foundation for their study of follow-up courses. 3. Case study, experiment of the course and simple OS design and implementation train the students' ability to analyze, design and implement operating systems.

编 码: CS04007	Code:CS04007
课程名称: 操作系统原理	Course Title:Operating System Principle
课程类别: 专业核心	Course category:Required Core Course
学 分: 4	Credit(s):4
开课单位: 信息科学与工程 学院	Offering College/School:College of Computer Science and Electronic Engineering

课程描述: 本课程是计算机工程系系定专业核心基础课程。课程的内容涵盖了现代计算机操作系统的概念、系统结构和实现机制。本课程主要讲解操作系统设计和实现的基本原理和方法,引导学生通过操作系统内核源代码的分析和设计来掌握现代操作系统的实现技术。主要内容包括操作系统的功能和结构概述、进程管理、互斥与同步、处理器调度的算法及其实现、内存管理和虚拟存储、文件系统,以及分布式系统、操作系统中的保护和安全机制。课程的目的旨在通过具体的操作系统实例为学生全面、细致地剖析现代操作系统的设计原理和实现技术,使学生掌握初步的操作系统设计和开发能力。

Course description: Operating systems are an essential part of any computer system. Similarly, a course on operating systems is an essential part of any computer-science and engineering education. In this course, we'll explain what operating systems are, what they do, and how they are designed and constructed. A large number of examples that pertain to the most popular and the most innovative operating systems will be presented to illustrate the concepts and algorithms of operating system.

编 码: CS04007	Code:CS04007
课程名称: 操作系统	Course Title:Operating System
课程类别: 学类核心	Course category:Major Survey Course
学 分: 4	Credit(s):4
开课单位: 信息科学与工程 学院	Offering College/School:College of Computer Science and Electronic Engineering

课程描述: 本课程是计算机工程系系定专业核心基础课程。课程的内容涵盖了现代计算机操作系统的概念、系统结构和实现机制。本课程主要讲解操作系统设计和实现的基本原理和方法,引导学生通过操作系统内核源代码的分析和设计来掌握现代操作系统的实现技术。主要内容包括操作系统的功能和结构概述、进程管理、互斥与同步、处理器调度的算法及其实现、内存管理和虚拟存储、文件系统,以及分布式系统、操作系统中的保护和安全机制。课程的目的旨在通过具体的操作系统实例为学生全面、细致地剖析现代操作系统的设计原理和实现技术,使学生掌握初步的操作系统设计和开发能力。

Course description: Operating systems are an essential part of any computer system. Similarly, a course on operating systems is an essential part of any computer-science and engineering education. In this course, we'll explain what operating systems are, what they do, and how they are designed and constructed. A large number of examples that pertain to the most popular and the most innovative operating systems will be presented to illustrate the concepts and algorithms of operating system.

编 码: CS04010	Code:CS04010
课程名称: 数据结构	Course Title:Data Structure
课程类别: 学类核心	Course category:Major Survey Course
学 分: 4	Credit(s):4
开课单位: 信息科学与工程 学院	Offering College/School:College of Computer Science and Electronic Engineering

课程描述: 数据结构是计算机科学与技术类的核心课程，也是一门实践性很强的专业技术基础课。数据结构课程介绍基本数据结构、基本算法分析技术、排序、检索和索引技术。通过本课程的学习，让学生掌握线性表、栈、队列、二叉树、树和图等常用的基本数据结构；并介绍了各种典型数据结构的应用；掌握常用的排序、检索算法及其时间、空间代价；学会分析计算机处理的数据对象的特性，能够选择并设计合适的数据结构及相应的算法，初步掌握算法的时间和空间代价的分析方法。

Course description: “Data Structures” is one of the most important core courses in Computer Science and technology. It is also a specialized basic course requiring much practice. This course introduces fundamental data structures, basic techniques for algorithm analysis as well as data sorting, searching and indexing. On a solid basis of the fundamental theory, the students will analyze the problems using problem, data and algorithm abstraction. Making a tradeoff between space and time complexity, the students will learn how to organize data reasonably, design efficient and effective algorithms, and implement high quality programs, so that they can solve real-world complex problems. After studying the course, the students’ ability of abstract thinking and problem solving should have improved considerably. Their programming skills and the quality of their codes would have increased as well. After studying this course, students should be well prepared for further study, engineering and research in computer related areas.

编 码: CS04015	Code: CS04015
课程名称: 操作系统	Course Title: Operating System
课程类别: 学类核心	Course category: Major Survey Course
学 分: 4	Credit(s): 4
开课单位: 信息科学与工程 学院	Offering College/School: College of Computer Science and Electronic Engineering

课程描述: 本课程是计算机科学与技术、信息安全、智能科学与技术、物联网工程、保密管理专业的双语专业核心课。通过系统讲授操作系统的基本概念、原理和设计方法,达到如下教学目标:1.使学生能够掌握操作系统的基本概念、原理、内部结构、设计开发技术。2.培养学生的基本系统能力,提高学生对计算机系统的整体理解,为学生学习后续相关课程打下必要的知识基础。3.通过课程实验和实例分析以及简单操作系统的设计,锻炼学生的操作系统分析、设计和实现能力。4.通过实验与项目加深对操作系统原理的理解,获得设计复杂工程问题解决方案,设计工具与方法的掌握,设计满足特定需求的复杂系统的基本素养和能力的提高。

Course description: This is a kernel bilingual course for majors of computer science and technology, information security, intelligence science and technology, IOT engineering, secrecy management. The object of this course includes :

- 1.The study of this course aims at the students' mastery of the operating systems' basic concepts, principles, internal structures, and design & development technologies.
- 2.The study of the course develops the students' basic system ability and promotes their overall understanding to computer systems, thus laying a solid prerequisite foundation for their study of follow-up courses.
- 3.Case study, experiment of the course and simple OS design and implementation train the students' ability to analyze, design and implement operating systems.
- 4.Through the experiment and the project to deepen the understanding of the operating system principle, the design of complex engineering problem solving, design tools and methods to master, design to meet the specific needs of the complex system of basic quality and ability to improve.

编 码: CS04021	Code:CS04021
课程名称: 程序设计实验	Course Title:Programming Experiment
课程类别: 学类核心	Course category:Major Survey Course
学 分: 2	Credit(s):2
开课单位: 信息科学与工程 学院	Offering College/School:College of Computer Science and Electronic Engineering

课程描述: 本实验大纲与该课程教学大纲的内容相配合, 由浅入深的指导学生了解和掌握如何在 DevC++集成开发环境中利用 C++程序设计语言进行简单的程序设计。通过这些实验内容加深学生对课堂讲授内容的理解, 使学生得到程序设计方面的基本训练, 培养学生程序设计的能力和调试程序的基本技能, 并熟练掌握用 C++设计结构化程序以及面向对象程序设计的基本知识和编程技巧, 提高学生利用计算机解决实际问题的能力, 使之能把程序设计应用到今后的专业学习中。在实验过程中要求学生在实验前一定要先行了解实验目的、内容、要求以及注意事项, 事先设计好程序框架、流程图和基本代码, 统一在实验时再进行上机调试, 最后按照要求提交实验报告和源代码。最后, 利用在线编译考试系统(OnlineJudgmentsSystem)为学生提供课程实验考试环境。

Course description: match the content of the syllabus and the curriculum syllabus, progressive approach to guide the students to understand and grasp how to in dev C + + integrated development environment using C + + programming language for simple programming. Through these experiments, students can understand the contents of classroom teaching, make students get basic training of program design, develop students' ability of program design and debug basic skills, and master the basic knowledge and programming skills of using C++ to design structured programming and object oriented programming. It can improve students' ability to solve practical problems.In the process of experiment, students must first understand the purpose, content, requirements and attention of the experiment, and design the program framework, flow chart and basic code.Finally, the online Judgments System Online system is used to provide the students with the test environment for the students.

编 码: CS04022	Code:CS04022
课程名称: 高等程序设计	Course Title:Advanced Programming
课程类别: 学类核心	Course category:Major Survey Course
学 分: 4	Credit(s):4
开课单位: 信息科学与工程 学院	Offering College/School:College of Computer Science and Electronic Engineering

课程描述: 本课程目的是让学生掌握一门高级程序设计语言,了解面向对象程序设计的基本概念与方法,进而学会利用 C++语言学会解决一般应用问题,并为后续的专业课程奠定程序设计基础。课程主要介绍 C++语言中的数据类型,运算,语句结构及其面向对象程序设计的基本方法。提高学生从面向对象的观点分析和解决应用问题的能力与水平,以适应未来工作如 IT 类工作的需要。以 C++程序设计为切入点,培养学生计算机程序设计共性基础知识。培养学生举一反三,快速学会 Java、C#等其他面向对象程序设计能力。尤其是对实际应用问题的抽象分析能力,以及针对问题域,提出设计与开发解决方案的能力。本课程是一门实践性很强的课程,必须通过上机操作才能掌握所学的知识,所以要特别强调讲授与上机操作相结合,要保证学生有充分的上机条件。

Course description: The purpose of this course is to let students master an advanced programming language and understand the basic concepts and methods of object-oriented programming, based on which they have the ability to solve the general application problems with the C++ language, so as to lay the foundation for the subsequent professional courses. This course mainly introduces the data types, operations, sentence structure and the basic method of object-oriented programming in C++ language. This course aims to improve the students' ability and level of solving and analyzing problems from the object-oriented perspective, in order to meet the needs of future work such as IT jobs. This course uses C++ programming language as the starting point, to develop students' common basic knowledge of computer programming design. Furthermore, it also cultivates the ability of inferring other things from one fact, and quickly learning Java C# and other object-oriented programming, especially improving the ability of abstract analysis of the practical problems and designing and developing solutions to the special problem domain. This course has strong practicalness, which requires computer operation and programming for mastering the knowledge. Therefore, it lays special stress on the combination of teaching and programming to ensure that the students have sufficient opportunity of programming on computer.

编 码: CS04023	Code: CS04023
课程名称: 计算机系统	Course Title: Computer System
课程类别: 学类核心	Course category: Major Survey Course
学 分: 4	Credit(s): 4
开课单位: 信息科学与工程 学院	Offering College/School: College of Computer Science and Electronic Engineering

课程描述: 本课程的目的是以如何深入了解计算机系统中一些底层的实现, 引导程序员编写更高效的程序。

课程目标一、成为更有效率的程序员;

1) 能够更有效的找出并且消除程序中的 bug;

2) 能够更好的进行程序性能调优;

课程目标二、为以后的计算机类“系统”级课程——编译系统、操作系统、网络、计算机体系结构、嵌入式系统等, 做好准备。

课程目标三、讲授计算机内部组织结构, 涉及的主题包括 C 和汇编语言编程, 内存管理, 如何将更高一级的程序翻译成机器语言, 计算机组织, 缓存, 性能测量, 网络编程, 并行编程。

课程目标四、加深对计算组成的深入理解, 帮助学生建立编写高性能的编译器、操作系统、网络、数据库乃至应用程序的理论基础。

课程目标五、通过实验与项目, 学生将获得设计复杂工程问题解决方案, 设计工具与方法的掌握, 设计满足特定需求的复杂系统的基本素养和能力的提高。

Course description: The purpose of this course is to understand the underlying implementation of computer system, guide the programmer to write more efficient programs.

CT1, become more efficient programmer;

1) can locate and remove bug more effectively in the program;

2) can make the program run more effeciently;

CT2, prepare for some future computer system-level courses-principle of compiling, operating systems, embedded systems, networks, computer architecture, and so on.

CT3, teaching inner structure of computer, covering the topics of c and assembly language programming, memory management, and how compile a high level program to machine instruction, computer organization, cache, performance measurement, network programming, and parallel programming.

CT4, deepen the understanding of computer architecture, help students develop the fundermental theory of writing high-performance compilers, operating systems, networking, databases, and applications.

CT5, Through the experiemnts and projects,students can get the ability of designing solutions to complex engineering problems, mastering design tools and methods, and enhance basic literacy and capacity of designing complex system that meet the specific needs.

编 码: CS04024	Code:CS04024
课程名称: 数字系统实验	Course Title:Digital System Experiments
课程类别: 学类核心	Course category:Major Survey Course
学 分: 1	Credit(s):1
开课单位: 信息科学与工程 学院	Offering College/School:College of Computer Science and Electronic Engineering

课程描述: 本课程是针对计算机科学技术、信息安全、通信工程、智能等专业而开设的一门重要专业基础实践课。课程是通过一个数字系统的自行设计, 拓展学生视野, 帮助学生掌握 FPGA 开发应用技术, EDA 技术辅助设计数字系统及分析方法; 理解数字电路与逻辑设计的相关知识; 并通过引导学生利用自制便携实验板自主实验来学习理论知识, 使其自主获取知识, 有效的提高学生综合分析问题和解决问题的能力。课程预期效果如下: ①自行设计与实现一个数字系统原型; ②EDA 软件工具的使用、FPGA 开发设计流程、硬件描述语言 VHDL 的编程以及其软件仿真能力的训练; ③设计过程中的调试方法及其实验现象分析和故障排除能力的训练。

Course description: This course is an important professional practice course facing the students of computer science and technology, information security, communication engineering, intelligence and etc. Through a design of digital system, the course will expand students' horizon; help students to master FPGA development and application technology, EDA technology-aided design of digital system and analysis and understand the relevant knowledge of digital circuits and logic design. The course will also guide students studying theoretical knowledge through independent experiments using self-made portable breadboard and effectively improve students' comprehensive ability to analyze and solve problems and access to knowledge voluntarily. Expected results of the course are as follows:① to design and implement a digital system prototype;② use of EDA software tools, FPGA development and design process, hardware description language VHDL programming and training of its software simulation capabilities; ③ debugging methods in the design process and its experimental results analysis as well as troubleshooting capabilities training.

编 码: CS04025	Code:CS04025X
课程名称: 操作系统原理与设计	Course Title:Operation system principles and design
课程类别: 学类核心	Course category:Major Survey Course
学 分: 4	Credit(s):4
开课单位: 信息科学与工程 学院	Offering College/School:College of Computer Science and Electronic Engineering

课程描述: 操作系统是软件工程和数字媒体的核心课程。本课程概述操作系统的形成、类型和功能; 阐述进程管理, 包括进程和线程的基本概念、进程的互斥、同步和通信、进程的调度和死锁的预防、检测、避免、恢复; 详细介绍存储器管理和虚拟存储器的概念以及对虚拟存储器性能的分析; 讨论设备管理、文件系统以及磁盘存储器的管理以及操作系统的保护与安全; 最后, 对操作系统的最新发展包括网络操作系统、分布式操作系统做扼要介绍。

Course description: A course on operating systems is an essential part of software engineering education. The course introduces what operating systems are, what they do, and how they are designed and constructed. The course describes the process concepts and concurrency as the heart of modern operating systems. It also covers methods for process scheduling, interprocess communication, process synchronization, deadlock handling and threads. Main memory management and virtual memory during the execution of a process is then introduced. The course describes how the file system, mass storage, and I/O are handled in a modern computer system. Finally, network operating systems and distributed systems are outlined.

编 码: CS04025	Code: CS04025
课程名称: 计算机系统原理实验	Course Title: Computer System Engineering Experiment
课程类别: 学类核心	Course category: Major Survey Course
学 分: 2	Credit(s): 2
开课单位: 信息科学与工程 学院	Offering College/School: College of Computer Science and Electronic Engineering

课程描述: 本课程是计算机科学与技术、信息安全、智能科学与技术、物联网工程、保密管理专业的双语专业核心课。通过系统讲授操作系统的基本概念、原理和设计方法,达到如下教学目标:1.使学生能够掌握操作系统的基本概念、原理、内部结构、设计开发技术。2.培养学生的基本系统能力,提高学生对计算机系统的整体理解,为学生学习后续相关课程打下必要的知识基础。3.通过课程实验和实例分析以及简单操作系统的设计,锻炼学生的操作系统分析、设计和实现能力。4.通过实验与项目加深对操作系统原理的理解,获得设计复杂工程问题解决方案,设计工具与方法的掌握,设计满足特定需求的复杂系统的基本素养和能力的提高。

Course description: This is a kernel bilingual course for majors of computer science and technology, information security, intelligence science and technology, IOT engineering, secrecy management. The object of this course includes :1.The study of this course aims at the students' mastery of the operating systems' basic concepts, principles, internal structures, and design & development technologies. 2.The study of the course develops the students' basic system ability and promotes their overall understanding to computer systems, thus laying a solid prerequisite foundation for their study of follow-up courses. 3.Case study, experiment of the course and simple OS design and implementation train the students' ability to analyze, design and implement operating systems. 4.Through the experiment and the project to deepen the understanding of the operating system principle, the design of complex engineering problem solving, design tools and methods to master, design to meet the specific needs of the complex system of basic quality and ability to improve.

编 码: CS04026	Code: CS04026
课程名称: 网络系统实验	Course Title: Network System Experiment
课程类别: 学类核心	Course category: Major Survey Course
学 分: 1	Credit(s): 1
开课单位: 信息科学与工程 学院	Offering College/School: College of Computer Science and Electronic Engineering

课程描述: 本课程是针对信息类专业开设的一门必修专业基础实践课, 本课程实验教学要求学生通过实验、课程设计等实践活动, 应该对计算机网络课程相关知识点有较全面的基本把握。诸如: 网络模型、通信量模型、路由选择算法、拥塞退避算法等网络理论基础; 局域网、因特网的体系结构; 网际互联基本原理与 TCP/IP 协议的基本功能、工作机理以及 IP、TCP 和应用三层主要协议提供的操作与服务; 网络安全的基础知识、技术与方法; 互联网环境下组网基本方法与技能。本课程的目的是通过本课程的学习, 使学生认识和理解计算机网络的基本概念、组成和原理; 弄清网络通信协议的设计过程和工作机理; 掌握互联网配置过程和组网要素。

Course description: "Network system experiment" is for informational opened a professional basis for compulsory professional practice course, this course requires students to experiment experimental teaching, curriculum design, practice, course-related computer network should have a more comprehensive knowledge of basic grasp. Such as: network theory underlying network model, traffic models, routing algorithms, congestion backoff algorithm; architecture LAN, Internet; basic functions Internetworking Fundamentals and TCP / IP protocol, working mechanism and IP, TCP and application of three operation and service layer is mainly provided by the protocol; network security basics, techniques and methods; the basic methods and skills of networking in the Internet environment. The purpose of this course is through the study of this course, so that students know and understand the basic concepts of computer networks, composition and principles; understand the design process and working mechanism of the network communication protocol; master the Internet and networking elements of the configuration process.

编 码: CS04027	Code:CS04027
课程名称: 应用统计与随机过程	Course Title:Applied statistics and random process
课程类别: 学类核心	Course category:Major Survey Course
学 分: 4	Credit(s):4
开课单位: 信息科学与工程 学院	Offering College/School:College of Computer Science and Electronic Engineering

课程描述: 应用统计与随机过程这门课程主要讲述随机信号的基本特性, 介绍从随机信号中获取统计规律的理论和方法及其在极值统计、顺序统计、累积统计、最优检测、主成分分析、隐马尔可夫过程分析、最优估计等方面的应用, 这些理论与方法广泛应用于通信、电子、自动控制等自然科学领域的信号分析与处理以及社会科学领域的数据分析与处理。本课程主要针对通信与电子工程专业的本科学生, 重点介绍通信及电子系统中常见的随机信号(例如正态随机信号、窄带随机信号、马尔可夫随机信号)的基本特征、随机信号的时域分析方法与频域分析方法、随机信号通过线性系统后的特性; 其中随机信号分析是讲授的重点, 应用统计部分以自学及小班讨论为主。

Course description: The course of Applied statistics and random process describes basic characteristics of random signal, introduces theories and methods of obtaining statistical law from random signal with applications in extreme statistics, order statistics, accumulation statistics, optimum detection, principal component analysis, hidden Markov process analysis and optimum estimation. The theories and methods are widely applied in the fields of nature science such as communication, electronics, automatic control for signal analysis and processing. The theories and methods are also widely applied in the fields of social science for data analysis and processing. The course is aimed primarily at undergraduate students majoring in communication engineering and electronics engineering. The emphasis will be basic characteristics of random signals (such as normal random signal, narrow-banded random signal and Markov chain) common in communication and electronics system, time-domain analysis of random signal, frequency-domain analysis of random signal and responses of linear system to random signals. The part of random signal analysis is chiefly introduced and the part of applied statistics is arranged for self-study and discussion.

编 码: CS04028**Code:**CS04028**课程名称:** 计算机组成与设计**Course Title:**Computer Organization and Design**课程类别:** 学类核心**Course category:**Major Survey Course**学 分:** 4**Credit(s):**4**开课单位:** 信息科学与工程
学院**Offering College/School:**College of Computer Science and
Electronic Engineering

课程描述: 计算机组成与设计是计算机类专业的核心专业基础课,通过该课程的学习,使学生了解计算机各组成部件的基本概念、基本结构、工作原理及设计方法,深刻理解和掌握计算机整机的组成和工作原理;掌握 CPU、内存系统、I/O 接口的设计方法,掌握计算机系统常用运算方法及典型运算电路设计;具备简单 CPU 及计算机系统的设计能力,并适当了解现代计算机系统设计发展前沿现状。

Course description: Computer organization and design is a key course of computer science during the undergraduate study. From the teaching, the student will learn the concept of computer component, basic architecture, principal, designing method, and know the organization and the principal of whole set of computer. This course will let the students know how to design the CPU, main memory, I/O interface, typical ALU circuit and how to organize these component together to be a whole computer. This course will train the capability of design in CPU and computer system and let students realize the state of the art of the modern computer system architecture.

编 码: CS05014	Code: CS05014
课程名称: 嵌入式计算机系统	Course Title: Embedded Computer System
课程类别: 专业核心	Course category: Required Core Course
学 分: 3	Credit(s): 3
开课单位: 信息科学与工程 学院	Offering College/School: College of Computer Science and Electronic Engineering

课程描述: 这是一门为计算机工程系相关专业的学生开设的专业核心课程。本课程的目的
是指导学生在已学的计算机知识基础上,以嵌入式系统的工程应用技术和方法为目的,学习
解决嵌入式系统在实际应用过程中所涉及的基本原理、知识、方法和工程技能等问题。课程
的教学内容主要包括:了解嵌入式系统的基本概念与原理以及嵌入式系统设计的基本问题、
原理、过程和方法;熟悉嵌入式系统硬件设计的常用工具、工程方法和系统硬件结构组成知
识;了解嵌入式系统外设硬件工作和控制的一般方法,熟悉嵌入式系统软件开发工具,掌握
软件开发和调式技术,熟悉嵌入式操作系统的应用。通过课程的实践和训练,掌握嵌入式系
统的工程实际应用技术。

Course description: This is a kernel curriculum for majors of computer engineering, aiming at
providing guidance to students in learning the basic principle, knowledge, methods and
engineering skills involved in the practical applications of the embedded systems based on the
learned knowledge of computer science, on the purpose of mastering the engineering methods
and skills of the embedded systems. The course contents mainly include understanding the basic
concept, principle and method of the embedded systems, getting familiar with the commonly used
tools and methods in the hardware designs of the embedded systems and the hardware structure
of the system, understanding the general control methods of the embedded systems' peripherals,
getting familiar with the software development tools of the embedded systems, grasping the
software developing and debugging skills, getting familiar with the applications of the embedded
operating systems, grasping the practical engineering technologies of the embedded systems
through the practice and training of the course.

编 码: CS05052	Code: CS05052
课程名称: 算法分析与设计	Course Title: Algorithms Analysis and Designing
课程类别: 学类核心	Course category: Major Survey Course
学 分: 4	Credit(s): 4
开课单位: 信息科学与工程 学院	Offering College/School: College of Computer Science and Electronic Engineering

课程描述: 算法分析与设计课程面向计算机科学与技术专业的高年级本科生。培养学生的问题求解能力是计算机专业教育的重要目标。算法作为计算机解决实际问题的手段,成为计算机专业学生需要掌握的核心技能之一。算法分析与设计在数据结构、离散数学等课程的基础上,进一步剖析各类主要算法的问题描述、主要思想、基本原理和应用场景。学习完本课程,学生不仅能掌握当前主要算法技术的工作原理,而且能理解该算法产生的背景和设计理念,使其能灵活运用这些技术,结合实际情况设计合适的算法来解决问题。同时,本课程会简要介绍算法复杂度分析的相关概念和常用方法,强化算法的性能指标,引导学生设计高效的算法,解决实际问题。

Course description: This course focuses on a number of the major strategies for designing computer algorithms to solve specific problems. The problems (e.g., classic cases) are used only as examples upon which the discussion of algorithm design techniques can be based. The course begins with a definition of the term “algorithm”, then moves to a discussion of techniques for analyzing algorithms, focusing on run-time complexity issues. A number of design strategies, including divide-and-conquer, dynamic programming, greedy algorithm, backtracking, branch-bound method, and randomized algorithm, are then discussed and illustrated with some of the classic algorithms.

编 码: CS05052	Code: CS05052
课程名称: 算法分析与设计	Course Title: Algorithms Design and Analysis
课程类别: 学类核心	Course category: Major Survey Course
学 分: 4	Credit(s): 4
开课单位: 信息科学与工程 学院	Offering College/School: College of Computer Science and Electronic Engineering

课程描述: 本课程算法设计与分析是计算机应用技术、软件工程、信息与计算科学以及相关专业的入门基础课程。课程以算法设计策略为知识单元,系统地介绍计算机算法的设计方法与分析技巧。在学生学习了编程的基本技术,掌握了数据结构的基本知识、理论的基础上,比较系统的学习算法理论中的基础部分内容。在这一课程教学中,培养学生掌握算法设计的方法论,掌握常用的算法设计的方法;掌握算法分析的基本工具、方法、技巧,在解决实际问题时,对于较复杂的问题能抽象出问题的数学模型,设计出有效的算法。为今后实际应用或者进行理论研究打下一些必备的理论基础。

Course description: The Algorithm Design and Analysis is a basic course of computer application technology, software engineering, information and computing science and related majors. The course's content units are organized by algorithm design strategy, and the design method and the analysis technique of the computer algorithm are introduced systematically, and introduces the design method and the analysis technique of the computer algorithm systematically. With the fundamental knowledge and theories of program and data structure, the students can learn the basic knowledge of algorithm systematically. The students can not only master the methodology and the common use method of algorithm design, but also design an efficient algorithm by using elementary tools to abstract mathematical model when faced practical problem. Then the students can get some solid theoretical foundation for the future study.

编 码: CS05052	Code:CS05052
课程名称: 算法分析与设计	Course Title:Algorithms Design and Analysis
课程类别: 学类核心	Course category:Major Survey Course
学 分: 4	Credit(s):4
开课单位: 信息科学与工程 学院	Offering College/School:College of Computer Science and Electronic Engineering

课程描述: 本课程涵盖经典算法的基本原理, 主要关注于用高效的算法解决棘手的难题。其目的是为物联网工程以及智能科学与技术专业的学生打下坚实的算法基础。在该门课程中, 主要内容包括算法简介、递归与分治、动态规划、贪心、回溯、分支界限等算法。通过本课程的学习, 学生可以掌握算法设计与分析的基本理论以及解决实际问题的能力。

Course description: This course covers the basic theory of classical algorithms, mainly focus on solving intractable problems using efficient algorithms. The goal is to provide a solid professional foundation in algorithms for bachelor degree students majoring in internet of thing technology and intelligent science and technology. In this course, the topics include introduction to algorithm, recursive and divide algorithm, dynamic programming, greedy, backtracking, branch and bound algorithm, and etc. I expect that students could get ahead through learning this course, both in terms of algorithm design and analysis techniques and its applications.

编 码: CS05054	Code: CS05054
课程名称: 数字电路与逻辑设计	Course Title: Digital Circuit And logic Design
课程类别: 学类核心	Course category: Major Survey Course
学 分: 4	Credit(s): 4
开课单位: 信息科学与工程 学院	Offering College/School: College of Computer Science and Electronic Engineering

课程描述: 《数字电路与逻辑设计》是一门电子信息类专业的核心课,是计算机科学与技术、软件工程、数字媒体技术、物联网工程、信息安全、信息安全(保密管理)、智能科学与技术专业本科生的必修课。通过大班授课、小班讨论、课程实验、课程设计、实验实习等教学环节使学生进一步了解数字电路的国内外发展现状、发展趋势、研究前沿,了解数字系统的原理和实现方式,正确分析其基本性能,引导设计者采用自顶向下的设计理念,用硬件描述语言设计出结构完整的数字系统;为学生学习后续专业课程做准备;使学生获得设计较复杂工程问题解决方案,设计工具与方法的掌握,设计满足特定需求的较复杂数字系统的基本素养和能力的提高。

Course description: 《Digital circuit and logic design》 is a core course of electronic information. It is a compulsory course for students majoring in computer science and technology, software engineering, digital media technology, Internet of things, information security, information security (Security Management), intelligent science and technology. Through large class lectures, class discussion, course experiment, course design, experimental practice teaching links enable students further understand the digital circuit of the domestic and foreign development status, development trend and research frontier, understanding of digital system theory and realization, correct analysis of the basic, guiding the designer using the top-down design concept, using VHDL to design the structural integrity of the digital system; for students to learn the following courses to prepare; to enable students to obtain the design complex engineering problem solutions and mastery of design methods and tools, meter can meet the improvement of basic literacy and ability of the specific needs of more complex digital systems.

编 码: CS05061	Code:CS05061
课程名称: 算法分析与设计	Course Title:Algorithms Analysis and Design
课程类别: 专业核心	Course category:Required Core Course
学 分: 4	Credit(s):4
开课单位: 信息科学与工程 学院	Offering College/School:College of Computer Science and Electronic Engineering

课程描述: 本课程涵盖经典算法的基本原理, 主要关注于用高效的算法解决棘手的难题。其目的是为物联网工程以及智能科学与技术专业的学生打下坚实的算法基础。在该门课程中, 主要内容包括算法简介、递归与分治、动态规划、贪心、回溯、分支界限等算法。通过本课程的学习, 学生可以掌握算法设计与分析的基本理论以及解决实际问题的能力。

Course description: This course covers the basic theory of classical algorithms, mainly focus on solving intractable problems using efficient algorithms. The goal is to provide a solid professional foundation in algorithms for bachelor degree students majoring in internet of thing technology and intelligent science and technology. In this course, the topics include introduction to algorithm, recursive and divide algorithm, dynamic programming, greedy, backtracking, branch and bound algorithm, and etc. I expect that students could get ahead through learning this course, both in terms of algorithm design and analysis techniques and its applications.

编 码: CS05062	Code:CS05062
课程名称: 数据库系统	Course Title:Database System
课程类别: 专业核心	Course category:Required Core Course
学 分: 4	Credit(s):4
开课单位: 信息科学与工程 学院	Offering College/School:College of Computer Science and Electronic Engineering

课程描述: 本课程将从分析各种数据管理模式特性, 以及人们对数据操作及管理的期求入手开始课程的学习之旅。重点学习关系数据模型下的数据定义和数据操作, 以及逻辑数据库设计和物理数据库设计。SQL 言语和数据库逻辑设计方法学将是本课程的重中之重。在 SQL 语言学习中, 学生将体验关系的定义方法, 数据的操作方法, 数据完整性控制方法, 数据安全管理方法, 数据处理性能提升技术, 数据可靠性保障方法。在数据库逻辑设计方法学的学习中, 学生将感受关系数据模型面临着数据正确性的挑战, 认识数据库设计中的关键问题, 理解 ER 模型和范式的实质, 掌握数据库设计的方法学。整个课程将通过业界一流的数据库管理系统, 最熟悉的数据管理案例, 来实现理论与实践的对接。

Course description: Information management has been become the mainstream of computer application. This course has been designed for bachelor students in software engineering major to master database design theory and technology, and techniques in corresponding application system development, deployment, and maintenance. This knowledge is necessary for anyone who will be become information systems managers, analysts, designers, programmers and IT practitioners. In this course, you will be guided to explore how relational concepts and techniques are used in database design and construction, database systems management, how to use SQL language, and how to develop applications based on web and database technology. The course will be a mixture of lectures by the instructor, classroom discussions, and practices of developing a real database application system. With the emphasis on learning by doing, you will gain comprehensive knowledge and skills in database design and corresponding application development.

编 码: CS05063	Code:CS05063
课程名称: 计算机网络	Course Title:Computer Network
课程类别: 专业核心	Course category:Required Core Course
学 分: 4	Credit(s):4
开课单位: 信息科学与工程 学院	Offering College/School:College of Computer Science and Electronic Engineering

课程描述: “计算机网络”是计算机类专业本科生的一门核心专业基础课程,通过本课程的教学,使学生对计算机网络从整体上有一个较清晰的了解,了解计算机网络的基本概念,了解网络新技术的新发展,从网络层次结构模型的应用层到链路层来对计算机网络体系结构进行描述,掌握计算机网络各层协议的基本工作原理及其所采用的技术,对当前计算机网络的主要种类和常用的网络协议有较清晰的概念,学会计算机网络的一些基本设计方法,对典型计算机网络(Internet)的特点和具体实现有基本印象,初步培养在 TCP/IP 协议工程和 LAN 上的实际工作能力,学会计算机网络操作和日常管理和维护的最基本方法,为以后计算机网络及其应用的专题学习和研究打下基础。

Course description: Computer network is a key course during the undergraduate study. From the teaching, the student will learn the concept of computer network, know the new development of computer network. This course will use a top-down approach to teach from the application layer to physic layer. The student will learn the method to design a simple network system. This course will train the capability of design in TCP/IP and LAN. It is a basic for the advance study of computer networks.

编 码: CS05064	Code: CS05064
课程名称: 数字媒体系统实验	Course Title: Digital media Systems experiment
课程类别: 专业核心	Course category: Required Core Course
学 分: 1	Credit(s): 1
开课单位: 信息科学与工程 学院	Offering College/School: College of Computer Science and Electronic Engineering

课程描述: 本课程是针对数字媒体技术类专业开设的一门必修专业课, 本课程主要是通过实验过程使学生能够掌握数字媒体技术的基本概念、数字音视频处理技术、数字动画技术、数字媒体的 WEB 集成、数字媒体压缩、存储、传输技术等内容, 进而可以独立完成数字媒体系统的设计与开发。数字媒体系统包含信息的获取、处理、编码、传输、发布、管理等方面。课程目标是培养学生设计开发数字媒体系统的能力。

Course description: The circuit experiment is a compulsory course for the students for majors of digital media technology. This course is to enable students to master mastery of the basic concepts of digital media technology, digital audio processing technology, digital animation, digital media WEB integration, digital media compression, storage, transmission technology and etc, and can complete the design and development of digital media system. Digital media system includes information acquisition, processing, encoding, transmission, distribution, management, and so on. The course aims to develop students' ability to design and develop digital media system.

编 码: CS05065	Code:CS05065
课程名称: 计算机网络技术	Course Title:Computer Network Technology
课程类别: 专业核心	Course category:Required Core Course
学 分: 4	Credit(s):4
开课单位: 信息科学与工程 学院	Offering College/School:College of Computer Science and Electronic Engineering

课程描述: 本课程属于计算机科学与技术 and 软件工程专业核心课程。课程主要结合因特网技术, 采用自顶向下的方法, 介绍计算机网络的构成, 重点讲述应用层、传输层、网络层和链路层的基本概念、协议和工作原理。使学生了解并掌握计算机网络的基本概念、工作原理、网络协议和组成, 培养学生掌握计算机网络的基本原理和实际操作能力, 以及具有分析、设计网络系统的初步能力, 通过实践性教学环节培养学生的实践能力、交流沟通能力和团队协作精神。

Course description: “Computer Networking” is one of the core courses for the Computer Science and Technology Major and Software Engineer Major. Combining with Internet technology, the course introduces the construction of computer network using the Top-Down approach. It focuses on the fundamental concepts, network protocols and mechanisms of application layer, transport layer, network layer and link layer. Our objective is that students will understand the fundamental concepts, mechanisms and network protocols of computer network, master the basic principles and practical abilities of computer network, and initially have designing and analyzing network system capabilities. Cultivate students’ practical abilities, communication abilities and good spirits of teamwork through the practical teaching.

编 码: CS05066

Code:CS05066

课程名称: 计算机算法

Course Title:Computer Algorithm

课程类别: 专业核心

Course category:Required Core Course

学 分: 4

Credit(s):4

开课单位: 信息科学与工程
学院

Offering College/School:College of Computer Science and
Electronic Engineering

课程描述: 该课程提供计算问题的数学模型的导论。它涵盖解决这些问题的常用算法、算法范例、及数据结构。课程强调算法和编程的之间的关系、及基本的性能测算和分析技术的导论。

Course description: This course provides an introduction to mathematical modeling of computational problems. It covers the common algorithms, algorithmic paradigms, and data structures used to solve these problems. The course emphasizes the relationship between algorithms and programming, and introduces basic performance measures and analysis techniques for these problems.

编 码: CS05067**Code:**CS05067**课程名称:** 编译技术**Course Title:**Compiler Technology**课程类别:** 专业核心**Course category:**Required Core Course**学 分:** 4**Credit(s):**4**开课单位:** 信息科学与工程
学院**Offering College/School:**College of Computer Science and
Electronic Engineering

课程描述: 本课程属于计算机科学与技术 and 软件工程专业核心课程, 该课程学习程序设计语言编译程序构造的一般原理、基本设计方法、主要实现技术方法和一些自动构造工具, 通过学习和实验, 使编译程序中的概念和技术应用于一般的软件设计和实现中。

Course description: “Compilers principles” is one of the core courses for the Computer Science and Technology Major and Software Engineer Major. This course teaches these topics include common principles how to construct compilers and basic methods how to design and some tools these can auto construct compilers. Through those stage of study and labs, Students can use those knowledges into common software designs and implements.

编 码: CS05068

Code:CS05068

课程名称: 软件工程导论

Course Title:Software Engineering Introduction

课程类别: 专业核心

Course category:Required Core Course

学 分: 4

Credit(s):4

开课单位: 信息科学与工程
学院

Offering College/School:College of Computer Science and
Electronic Engineering

课程描述: 课程围绕一个基于真实需求的软件项目的分析、设计、编码、测试和部署的全过程, 递进式地讲解软件工程的相关理论, 包括其原则、方法, 以及使用技巧, 帮助学生了解软件工程的相关理论, 学习和掌握软件工程中需求分析、软件设计、开发、测试等的必要知识和技能。

Course description: Based on the whole process of project's design, coding, testing and deployment, to explain the theory of software engineering, including its principles, methods, and the use of skills. Through the project development and lectures, it helps students to study and master the necessary knowledge and skills of requirements analysis, software design, development and testing in the software engineering.

编 码: CS05069	Code: CS05069
课程名称: 数据库系统	Course Title: Database System
课程类别: 专业核心	Course category: Required Core Course
学 分: 4	Credit(s): 4
开课单位: 信息科学与工程 学院	Offering College/School: College of Computer Science and Electronic Engineering

课程描述: 数据库是现代信息社会的基石。本课程以数据库原理和数据库的设计、管理为知识主线,融入了数据库管理、数据库设计等相关内容,提高学生对数据库理论的掌握、设计和管理的应用能力,扩展学生的专业视野,并积极引进吸收国外最新理论和技术,紧密结合企业核心技术,提高学生的实践能力,为学生走向社会打下坚实的基础。通过对本课程的学习,使学生掌握数据模型、数据库系统结构、关系数据理论、关系数据库标准语言 SQL、数据库设计与实体-联系模型、关系规范化、数据库应用程序设计等。本课程旨在使学生全面理解数据库系统的基本概念,具备使用数据库管理系统软件和开发数据库应用系统的能力。

Course description: Database is the cornerstone of modern information society. This course focuses on the knowledge of database principle, design and management, introduced the latest theory and technology outside China, and closely combined with the core technology of enterprises. It is of great use to the students in helping them to master the database theory, enhance their ability to design and manage database, and their eyesight will be dramatically widened. And what's more, the teaching materials have always been being updated, without losing superiority and practicability. Through the study of this course, student can master Data Model, Database System Structure, Relative Data Theory, relational database standard language SQL, database design and entity-relationship data model, relational formalization and database application programming etc. Students are expected to have fully understanding of the basic concepts of database systems, and be able to use database management systems and develop database applications.

编 码: CS05070	Code: CS05070
课程名称: 数据库系统实验	Course Title: Database System Experiment
课程类别: 专业核心	Course category: Required Core Course
学 分: 1	Credit(s): 1
开课单位: 信息科学与工程 学院	Offering College/School: College of Computer Science and Electronic Engineering

课程描述: 本课程目的是使学生掌握数据库的基本概念、基本理论和基本技术,能够应用这些理论和技术设计合理的数据库,能够有效地使用现有的数据库管理系统和软件开发工具,具有初步开发完整可用的数据库应用系统的能力。在本课程教学中,使学生熟练使用一种数据库语言(SQL),深入掌握一种数据库管理系统(如 MSSQLServer),培养学生面对大量而复杂的数据管理要求,能深入实际数据管理现场,提出最优的数据管理模型和方法,构造最优的数据库模式,书写规范的文档报告,建立起数据库及其应用系统的数据管理能力。

Course description: The purpose of this course is to enable students to master the basic concepts, basic theory and basic technology of database, to apply these theories and techniques to design a reasonable database, can effectively use the existing database management system and software development tools, has the ability to develop a complete and usable database application system. In the course of teaching, students can use a database language (SQL), a kind of database management system(MS SQL server), training students to face a large number of complex data management requirements, to the actual data management field, and put forward the best data management model and method, to construct the optimal database model, write specification document report, to build up the database and its application system data management capabilities.

编 码: CS05071	Code: CS05071
课程名称: 软件工程文档写作	Course Title: Software Engineering Document Writing
课程类别: 专业核心	Course category: Required Core Course
学 分: 1	Credit(s): 1
开课单位: 信息科学与工程 学院	Offering College/School: College of Computer Science and Electronic Engineering

课程描述: 《软件工程文档写作》是计算机科学与技术学科专业、软件工程及相关专业的一门重要的专业核心课程。软件工程将系统化的、严格约束的、可量化的方法应用于软件的开发、运行和维护,可以大致划分为三个阶段,定义阶段:可行性研究初步项目计划、需求分析;开发阶段:概要设计、详细设计、实现、测试;运行和维护阶段:运行、维护、废弃。在这个过程中的每一个阶段,都应该包含有相应的文档编制工作。文档的编制是软件开发过程中的重要工作,是工程化方法的重要体现。符合要求的、规范化的文档在软件开发中起着表达思想、传递信息的重要作用,是保证软件开发质量、提高软件可维护性、可靠性和可生产性的重要保障。所以《软件工程文档写作》对于相关专业学生而言是一门值得选修的课程。

Course description: "How to write software engineering document " is an important core course of computer science and technology, software engineering and related majors. Software engineering will be systematic, strictly bound, can be quantified in the software development, operation and maintenance.It can be roughly divided into three stages, the definition phase: feasibility study of the project plan, demand analysis; development stage: outline design, detailed design, implementation, testing, operation and maintenance stages: operation, maintenance, waste. In every stage of the process, there should be some corresponding documentations. Documentation is an important work in the process of software development, and it is an important embodiment of engineering method. In line with the requirements of the document in the development of software plays an important role in the expression of ideas and information, is to ensure the quality of software development, improve the software maintainability, reliability and can produce an important guarantee. So " How to write software engineering document " is an elective course for the students concerned.

编 码: CS05072	Code: CS05072
课程名称: 软件设计与实现	Course Title: Software Design and Implement
课程类别: 专业核心	Course category: Required Core Course
学 分: 1	Credit(s): 1
开课单位: 信息科学与工程 学院	Offering College/School: College of Computer Science and Electronic Engineering

课程描述: 《软件设计与实现》主要针对软件工程专业学生开设的一门软件技术开发实践课程。该课程以项目驱动的方式通过 WEB 应用软件系统的设计与程序实现,使学生全面掌握软件工程管理、软件需求分析、软件初步设计、软件详细设计、软件测试等阶段的方法和技术,理解完整、规范的软件开发过程,重点培养与训练学生软件分析、设计与开发能力,培养学生的合作意识与团队精神,从而提高学生软件工程的综合能力与项目管理能力。

本课程的任务是传授实验知识、实验方法,培养实验技能。课程目标如下:

- ①以分组的方式设计与实现一个 WEB 应用软件系统;
- ②提升学生的系统需求分析与软件设计、实现水平;
- ③通过项目实践提升团队协作,项目管理能力。

Course description:

"software design and implementation" is a practical course of software technology for software engineering professional students. This course is designed and implemented by WEB application software system, which enables students to master the methods and techniques of software engineering management, software requirement analysis, software design, software testing, to foster students' cooperative consciousness and team spirit and improve students' ability of software engineering and project management.

The task of this course is to teach the experimental knowledge, the experimental method, and to develop the experimental skills. The course objectives are as follows:

To design and implement a WEB application software system by using team work method;

To improve the students' system requirements analysis and software design and implementation;

To enhance team collaboration and project management skills through project practice.

编 码: CS05073	Code:CS05073
课程名称: 人工智能导论	Course Title:Introduction to Artificial Intelligence
课程类别: 专业核心	Course category:Required Core Course
学 分: 4	Credit(s):4
开课单位: 信息科学与工程 学院	Offering College/School:College of Computer Science and Electronic Engineering

课程描述: 本课程是计算机科学与技术专业本科生的一门专业核心课程。课程通过 12 个章节, 分别从技术原理和应用实践的角度, 使学生掌握人工智能的基本概念、原理和方法、了解人工智能的关键技术、掌握智能 Agent、通过搜索解决问题、经典的搜索方法、游戏对抗搜索、约束满足问题、经典规划、经典机器学习方法等内容, 并通过使用一些实用的工具如 Matlab 等进行经典人工智能的算法的编程实践。通过本课程的教学, 为计算机科学与技术专业学生今后从事计算机相关工作或科研打下基础。

Course description: This course is a compulsory course for the undergraduate students of the specialty of computer science and technology. This course contents 12 chapters, through the view of both the technology principle and application, to systematically introduce the basic concept, principle and methods of artificial intelligence. Students will learn the key technologies of artificial intelligence, including Intelligent Agents, Solving Problems by Searching, Classical Search, Adversarial Search, Constraint Satisfaction Problems, Classical Planning and Classical Machine Learning methods, etc. Some experiments have been designed for students to learn some classical artificial intelligent algorithms by using useful tools such as Matlab. This course will provide the basic knowledge for students from the specialty of computer science and technology for their future work and research related in the area of computer science.

编 码: CS05074	Code:CS05074
课程名称: 计算机网络	Course Title:Computer Networks
课程类别: 专业核心	Course category:Required Core Course
学 分: 4	Credit(s):4
开课单位: 信息科学与工程 学院	Offering College/School:College of Computer Science and Electronic Engineering

课程描述: 本课程系统讲授计算机网络的基础概念, 支撑这些概念的理论基础, 系统设计理念以及工程实现中的考虑因素。课程内容涵盖计算机网络技术演化简史, 互联网应用, 传输层技术和性能评估, 网络层路由技术, 链路层接入控制。同时本课程还将涉及像无线网络和安全这样的前沿内容。

Course description: This course provides an introduction to fundamental concepts in computer networks, including their underlying theories, design principles and implementation considerations. Topics covered in this course include brief history of computer networks, Internet applications, transport protocols and performance evaluation, network layer and routing, and link layer access control. This course also offers advanced topics such as wireless networks and security.

编 码: CS05075	Code: CS05075
课程名称: 编译原理	Course Title: Principles of Compiling
课程类别: 专业核心	Course category: Required Core Course
学 分: 4	Credit(s): 4
开课单位: 信息科学与工程 学院	Offering College/School: College of Computer Science and Electronic Engineering

课程描述: 编译原理是为计算机类专业学生开设的专业核心课。该课程要求学生掌握程序语言编译器的基本原理、基本方法和编译器构造的工具和技术；程序设计语言发展历程及其最新发展，编译技术的最新发展，程序设计语言基础，培养计算思维，从系统角度再认识程序，为就业搭建更高平台。具体内容包括：引论、词法分析、语法分析、语法制导翻译、中间代码生成、运行时环境和代码生成等。

Course description: Compilers Principles is a compulsory course for students of computer science & technology and information security. The purposes of this course are to enable students to master basic principles, methods and construction tools & technology of compilers, and history, the latest development and innovation in programming languages, the latest development in compiling technology, programming languages fundamentals, develop computational thinking and gain new sights into programs from system view, so as to build a higher platform for their future careers. The contents of this course cover an introduction to compilers principles, lexical analysis, parsing, syntax-directed translation, intermediate code generation, running environment and code generation.

编 码: CS05076	Code:CS05076
课程名称: 数据库原理	Course Title:Principles of Database Systems
课程类别: 专业核心	Course category:Required Core Course
学 分: 4	Credit(s):4
开课单位: 信息科学与工程 学院	Offering College/School:College of Computer Science and Electronic Engineering

课程描述: 这是一门为计算机科学与技术专业本科生开设的专业核心课程。数据库技术和系统已经成为信息基础设施的核心技术和重要基础。数据库技术作为数据管理的最有效的手段,极大的促进了计算机应用的发展。本课程系统讲述数据库系统的基础理论、基本技术和基本方法。内容包括:数据库系统的基本概念、数据模型、关系数据库及其标准语言 SQL、数据库安全性和完整性的概念和方法、关系规范化理论、数据库设计方法和步骤,数据库恢复和并发控制等事务管理基础知识,关系查询处理和查询优化等。

Course description: This is a Required Core Course for the students studying the computer science and technology. Database technology has become the key technology and important basis of the information infrastructure. As the most efficient means of data management, database technology boosts the development of computer application. In this course, the basic theoretic, technology and methods of database system is introduced. The main content includes: the basic concepts of database, data models, relational database and SQL query language, the concepts and methods for database security and integrity, relation normalization theoretic, the methods and steps of database design, database recovery and concurrent control, the basic knowledge for transaction, query processing and query optimization.

编 码: CS05077	Code: CS05077
课程名称: 电路分析(含“电路实验”)	Course Title: Circuit Analysis (Including Circuit Experiment)
课程类别: 专业核心	Course category: Required Core Course
学 分: 3	Credit(s): 3
开课单位: 信息科学与工程学院	Offering College/School: College of Computer Science and Electronic Engineering

课程描述: 电路分析是电路理论的入门课程, 主要探讨集总电路的基本定律、定理及基本的电路分析计算方法。对于通信工程专业, 本课程的教学重点为集总电路的基本定律和定理及线性电阻电路、一阶动态电路、交流稳态电路、三相电路以及耦合电感电路的基本分析方法, 其中, 动态电路、交流稳态电路的分析和相量法将是学习本课程的难点。通过电路分析的学习, 使学生掌握电路分析的基本理论和基本方法, 为学生继续学习各电路课程及相关课程如信号与系统、电子线路设计、信号处理、通信原理等课程打下坚实的基础。通过电路分析基础的整个教学过程, 不断提高学生的素质, 为培养高层次、综合性、复合型工程技术人才作准备。

Course description: Circuit analysis is an introductory course of circuit theory, which mainly discusses the fundamental laws and theorems of lumped circuit, it also discusses basic calculation methods of circuit analysis. For communication engineering, this course mainly focuses on teaching the basic laws and theorems of lumped circuit and linear resistance circuit, the first order dynamic circuit, AC steady state circuit, and the three-phase circuit as well as basic analysis method of the coupling inductance circuit. The analysis of dynamic circuit, AC steady state circuit and phasor method will be the difficulties during learning this course.

编 码: CS05078	Code: CS05078
课程名称: 计算机网络系统结构	Course Title: Computer Network and System Structure
课程类别: 专业核心	Course category: Required Core Course
学 分: 4	Credit(s): 4
开课单位: 信息科学与工程 学院	Offering College/School: College of Computer Science and Electronic Engineering

课程描述: 计算机网络课程向学生介绍计算机网络设计和应用的基本知识。内容包括分层网络模型,重点讲述应用层、传输层、网络层和链路层。该门课程采用自顶向下的方式讲述计算机网络原理,即最高层网络应用逐层向下讲述到最底层物理层传输。这门课的两个目标:

1) 使学生理解网络软件的设计原则。这门课给学生提供了一个机会将所学计算机科学的知识应用到网络软件设计。2) 掌握当前网络运行的协议。课堂讲述大部分时间为网络协议。只有了解当前运行的协议标准,才可能实现新的网络协议和修改现有网络协议。我们将从实验、项目、考试和课堂参与几方面来考核学生。

Course description: The course introduces students to the fundamental concepts in the design and implementation of computer networks, their protocols and applications. Topics to be covered include the layered network architecture model, focusing on the application, transport, network and link layers. This course is an introduction to computer networking using a top-down approach—that is, by beginning at the highest layer of the protocol stack (application layer) and proceeding down through different layers towards the lowest one (the physical layer). The primary goal of the course is to understand the design principles of networking software. You should see this course as an opportunity to apply what you've learned in computer science to reason critically about networking technology. A second goal is to learn the details about the existing protocols in use today. We will spend a good portion of our time on this pursuit. It is important for you to learn to read and understand protocol standards so that you can write new implementation or to modify an existing code base. Expected student work includes lab exercises, programming projects, exams, and active class participation.

编 码: CS05079	Code:CS05079
课程名称: 操作系统实验	Course Title:Operating System Experiment
课程类别: 专业核心	Course category:Required Core Course
学 分: 2	Credit(s):2
开课单位: 信息科学与工程 学院	Offering College/School:College of Computer Science and Electronic Engineering

课程描述: 操作系统是计算机系统中负责管理各种软硬件资源的核心系统软件, 为应用软件运行提供良好的环境。作为计算机专业本科毕业生的基本要求, 通过实验深刻理解操作系统的基本原理及其核心技术有助于学生构造不同应用环境的操作系统甚至修改或编写操作系统内核代码。本课程的主要有如下 9 个方面的教学内容: 1) 利用工具 bootloader 加载 ucoreOS; 2) 构建简单的物理内存管理系统; 3) 实现具有 pagefault 异常处理和 FIFO 页替换算法的虚拟存储器管理; 4) 创建内核线程; 5) 用户进程的创建; 6) 通过系统调用完成用户进程的管理; 7) 进程调度管理机制; 8) 进程同步机制的实现; 9) 文件系统的设计与实现。

Course description: Operating System is the important system software which monitors many kinds of resource in computer system and provides good running environment for application software. As a basic requirement for undergraduate course in computer major, It serves the purpose of building new operating system fitting for different application background, even modifying or recomposing kernel code to do the experiments for grasping the principle of operating system. This course will involve the following the content: 1) The core of ucore OS is loaded by utilizing bootloader; 2) The physical memory management is built; 3) The virtual memory management is built by including page fault mechanism and FIFO repalcement algorithm; 4) Kernel thread is created ; 5) user thread is created; 6) The user thread is managed by system call; 7) Process scheduling management mechanism; 8) implementation of synchronized processes; 9) Design and implementation of file system.

编 码: CS05080	Code: CS05080
课程名称: 网络原理与系统实验	Course Title: Network Principle and System Experiment
课程类别: 专业核心	Course category: Required Core Course
学 分: 2	Credit(s): 2
开课单位: 信息科学与工程 学院	Offering College/School: College of Computer Science and Electronic Engineering

课程描述: 本课程是针对信息类专业开设的一门必修专业基础实践课, 本课程实验教学要求学生通过实验、课程设计等实践活动, 应该对计算机网络课程相关知识点有较全面的基本把握。诸如: 网络模型、通信量模型、路由选择算法、拥塞退避算法等网络理论基础; 局域网、因特网的体系结构; 网际互联基本原理与 TCP/IP 协议的基本功能、工作机理以及 IP、TCP 和应用三层主要协议提供的操作与服务; 网络安全的基础知识、技术与方法; 互联网环境下组网基本方法与技能。本课程的目的是通过本课程的学习, 使学生认识和理解计算机网络的基本概念、组成和原理; 弄清网络通信协议的设计过程和工作机理; 掌握互联网配置过程和组网要素。

Course description: "Network principle and system experiment" is for informational opened a professional basis for compulsory professional practice course, this course requires students to experiment experimental teaching, curriculum design, practice, course-related computer network should have a more comprehensive knowledge of basic grasp. Such as: network theory underlying network model, traffic models, routing algorithms, congestion backoff algorithm; architecture LAN, Internet; basic functions Internetworking Fundamentals and TCP / IP protocol, working mechanism and IP, TCP and application of three operation and service layer is mainly provided by the protocol; network security basics, techniques and methods; the basic methods and skills of networking in the Internet environment. The purpose of this course is through the study of this course, so that students know and understand the basic concepts of computer networks, composition and principles; understand the design process and working mechanism of the network communication protocol; master the Internet and networking elements of the configuration process.

编 码: CS05081	Code: CS05081
课程名称: 算法设计与分析	Course Title: Algorithm Design and Analysis
课程类别: 专业核心	Course category: Required Core Course
学 分: 4	Credit(s): 4
开课单位: 信息科学与工程 学院	Offering College/School: College of Computer Science and Electronic Engineering

课程描述: 本课程算法设计与分析是计算机应用技术、软件工程、信息与计算科学以及相关专业的入门基础课程。课程以算法设计策略为知识单元,系统地介绍计算机算法的设计方法与分析技巧。在学生掌握编程的基本技术,掌握了数据结构的基本知识、理论的基础上,比较系统地学习算法理论中的基础部分内容。在这一课程教学中,培养学生掌握算法设计的方法论,掌握常用的算法设计的方法;掌握算法分析的基本工具、方法、技巧,在解决实际问题时,对于较复杂的问题能抽象出问题的数学模型,设计出有效的算法。为今后实际应用或者进行理论研究打下一些必备的理论基础。

Course description: The Algorithm Design and Analysis is a basic course of computer application technology, software engineering, information and computing science and related majors. The course's content units are organized by algorithm design strategy, and the design method and the analysis technique of the computer algorithm are introduced systematically, and introduces the design method and the analysis technique of the computer algorithm systematically. With the fundamental knowledge and theories of program and data structure, the students can learn the basic knowledge of algorithm systematically. The students can not only master the methodology and the common use method of algorithm design, but also design an efficient algorithm by using elementary tools to abstract mathematical model when faced practical problem. Then the students can get some solid theoretical foundation for the future study.

编 码: CS05082**Code:**CS05082**课程名称:** 计算机网络**Course Title:**Computer Networks**课程类别:** 专业核心**Course category:**Required Core Course**学 分:** 4**Credit(s):**4**开课单位:** 信息科学与工程
学院**Offering College/School:**College of Computer Science and
Electronic Engineering

课程描述: 本课程系统讲授计算机网络的基础概念, 支撑这些概念的理论基础, 系统设计理念以及工程实现中的考虑因素。课程内容涵盖计算机网络技术演化简史, 互联网应用, 传输层技术和性能评估, 网络层路由技术, 链路层接入控制。同时本课程还将涉及像无线网络和安全这样的前沿内容。

Course description: This course provides an introduction to fundamental concepts in computer networks, including their underlying theories, design principles and implementation considerations. Topics covered in this course include brief history of computer networks, Internet applications, transport protocols and performance evaluation, network layer and routing, and link layer access control. This course also offers advanced topics such as wireless networks and security.

编 码: CS05083	Code: CS05083
课程名称: 数据库系统	Course Title: Database System
课程类别: 专业核心	Course category: Required Core Course
学 分: 4	Credit(s): 4
开课单位: 信息科学与工程 学院	Offering College/School: College of Computer Science and Electronic Engineering

课程描述: 数据库是现代信息社会的基石。本课程以数据库原理和数据库的设计、管理为知识主线,融入了数据库管理、数据库设计等相关内容,提高学生对数据库理论的掌握、设计和管理的应用能力,扩展学生的专业视野,并积极引进吸收国外最新理论和技术,紧密结合企业核心技术,提高学生的实践能力,为学生走向社会打下坚实的基础。通过对本课程的学习,使学生掌握数据模型、数据库系统结构、关系数据理论、关系数据库标准语言 SQL、数据库设计与实体-联系模型、关系规范化、数据库应用程序设计等。本课程旨在使学生全面理解数据库系统的基本概念,具备使用数据库管理系统软件和开发数据库应用系统的能力。

Course description: Database is the cornerstone of modern information society. This course focuses on the knowledge of database principle, design and management, introduced the latest theory and technology outside China, and closely combined with the core technology of enterprises. It is of great use to the students in helping them to master the database theory, enhance their ability to design and manage database, and their eyesight will be dramatically widened. And what's more, the teaching materials have always been being updated, without losing superiority and practicability. Through the study of this course, student can master Data Model, Database System Structure, Relative Data Theory, relational database standard language SQL, database design and entity-relationship data model, relational formalization and database application programming etc. Students are expected to have fully understanding of the basic concepts of database systems, and be able to use database management systems and develop database applications.

编 码: CS05084	Code: CS05084
课程名称: 安全系统实验	Course Title: Security System Experiment
课程类别: 专业核心	Course category: Required Core Course
学 分: 1	Credit(s): 1
开课单位: 信息科学与工程 学院	Offering College/School: College of Computer Science and Electronic Engineering

课程描述: 本实验是针对信息类专业开设的专业基础实践课。本课程主要是以网络信息安全为主要的研究对象,学习网络信息安全的技术和相关的软件平台应用技术。课程的任务是指导和帮组学生根据实验任务及要求确定实验方案,使用常见的保密性和认证性工具, SSE 工具加密信息, ECsign 工具签名文件;学会使用常见的网络攻防工具,配置防火墙,实现简单信息隐藏,安全扫描,入侵检测(防御)系统的操作。课程的目的是通过上机实验,要求学生掌握网络安全技术中的网络攻防技术,理解网络安全设备工作原理,了解最新的网络安全动向,基础好的学生,还可以编写网络安全工具。

Course description: "Information security experiment" is for informational professional practice course offered professional basis. This course is based on network and information security as the main object of study, learning network information security technology and related software platform application technology. Task curriculum guide and help groups of students to determine the experimental program based on experimental tasks and requirements, using the common security and authentication tools, SSE tools to encrypted information, ECsign tool signature files; learn to use a common network attack tools, configure the firewall to achieve simple information hiding, operating security scanning, intrusion detection (defense) system. Aim of the course is to experiment on the computer by requiring students to master the techniques of network security network attack and defense technology, understanding of network security equipment works, learn about the latest trends in network security, basic good student, you can write network security tools.

编 码: EI04017	Code:EI04017
课程名称: 数字逻辑	Course Title:Digital Logic
课程类别: 学类核心	Course category:Major Survey Course
学 分: 4	Credit(s):4
开课单位: 信息科学与工程 学院	Offering College/School:College of Computer Science and Electronic Engineering

课程描述: “逻辑逻辑”是计算机、电子技术、仪器仪表、机电一体化等弱电类各专业本科学生的一门重要课程,是“计算机组成原理”、“微机原理”、“计算机控制”、“测控技术”、“嵌入式系统”等课程的主要先导课程之一,为这些课程提供器件、部件和系统三方面的基础知识,是一门重要的专业基础课。本课程的主要教学目标是使学生了解和掌握从对数字电路或数字系统提出要求开始,到利用商用集成电路芯片或 FPGA 来实现所需逻辑功能为止的整个过程的完整知识。本课程的基本要求除了系统地掌握组合逻辑电路和同步时序逻辑电路的分析与设计的经典方法之外,还要求掌握利用现代 EDA 工具进行数字系统设计的先进思想与基本方法。

Course description: This course provides an introduction to fundamental concepts and methods in the design of logic circuits and computers. Topics to be covered include: digital system and information, combinational logic circuits, combinational logic design, arithmetic functions and HDLs, sequential circuits, selected design topics, and registers and register transfers. This course follows industry trends by adding new material such as hardware description. Sixty “real world” examples and problems, most drawn from design problems for products encountered in contemporary day-to-day life, motivate interest and provide practice in solution formulation.

编 码: EI04022	Code: EI04022
课程名称: 信号与系统(含信号处理实验)	Course Title: Signals and Systems (Signal Processing Experiments included)
课程类别: 专业核心	Course category: Required Core Course
学 分: 4	Credit(s): 4
开课单位: 信息科学与工程学院	Offering College/School: College of Computer Science and Electronic Engineering

课程描述: "本课程是为电子信息类专业大学生开设的一门在信号与线性系统理论和应用方面的基础课程,内容包括:信号与系统的定义、分类,信号的运算规则,系统的性质与系统的数学模型;时域分析、频域分析、S 域分析、Z 域分析。本课程的总体框架是两个方程(连续时间系统的微分方程与离散时间系统的差分方程)、三个变换(傅里叶变换、拉普拉斯变换、Z 变换)、两种分析方法(端口分析方法和状态变量分析方法)。

通过本课程的学习,使学生理解信号与系统的基本概念,掌握信号与系统的分析方法,了解信号与系统的应用。重点理解并掌握各种信号的描述及其时域特性、频率特性、系统的数学模型建立、线性时不变系统的时域分析、变换域分析和状态变量分析的方法。"

Course description: "This course is a fundamental one given for the Electrical and Electronic Information majors in the area of signal and linear system theory and application. It covers the following parts: the definition and classification of signals and systems, operation rules of signals, characteristics of systems and the mathematic module of systems; time domain analysis, frequency domain analysis, S domain analysis which is for continuous signals and systems, and Z domain analysis which is for discrete signals and systems.

The overall structure of this course is including two equations (Differential Equations of Continuous Systems and Difference Equations of Discrete Systems), three transform (Fourier Transform, Laplace Transform, and Z Transform) and two analysis methods (Port Analysis Method and Status Variables Analysis Methods).

By studying this course, students could understand the physical concepts of signals and systems, master the analysis methods for signals and systems, and understand the applications of signals and systems. Students should emphasis on the understanding and mastery of the description of various signals and their time domain characteristics, frequency domain characteristics, establishment of mathematical module of the systems, and the methods of time domain analysis, transform domain analysis, status variable analysis of linear time-invariant systems."

编 码: EI05005	Code: EI05005
课程名称: 通信原理(含通信原理实验)	Course Title: Communication Principles (Experiments Included)
课程类别: 专业核心	Course category: Required Core Course
学 分: 4	Credit(s): 4
开课单位: 信息科学与工程学院	Offering College/School: College of Computer Science and Electronic Engineering

课程描述: 《通信原理》课程是通信工程、电子信息工程专业的一门重要的专业理论课程，也是该专业的必修课程。通过本课程的学习，使学生建立起通信的完整概念，对通信系统组成、原理和分析方法有一个全面的理解和掌握。了解当前商务界使用的固定通信、移动通信网络的类型和所采用的新知识、新技术、新方法，为将来从事通信技术工作打下坚实的基础。

Course description: "Communication Theory" course is a communication engineering, electronic information engineering an important professional theory courses, is also the profession compulsory courses. Through this course, students establish a complete concept of communication, the communication system components, the principles and methods of analysis have a comprehensive understanding and grasp. Learn to use the fixed communication business world, the type of mobile communications network and use new knowledge, new technologies, new methods currently a solid foundation for future work to lay in communications technology.

编 码: EI05025**Code:** EI05025**课程名称:** 电路分析**Course Title:** Circuit Analysis**课程类别:** 专业核心**Course category:** Required Core Course**学 分:** 4**Credit(s):** 4**开课单位:** 信息科学与工程
学院**Offering College/School:** College of Computer Science and
Electronic Engineering

课程描述: 电路分析是电路理论的入门课程, 主要探讨集总电路的基本定律、定理及基本的电路分析计算方法。对于通信工程专业, 本课程的教学重点为集总电路的基本定律和定理及线性电阻电路、一阶动态电路、交流稳态电路、三相电路以及耦合电感电路的基本分析方法, 其中, 动态电路、交流稳态电路的分析和相量法将是学习本课程的难点。通过电路分析的学习, 使学生掌握电路分析的基本理论和基本方法, 为学生继续学习各电路课程及相关课程如信号与系统、电子线路设计、信号处理、通信原理等课程打下坚实的基础。通过电路分析基础的整个教学过程, 不断提高学生的素质, 为培养高层次、综合性、复合型工程技术人才作准备。

Course description: Circuit analysis is an introductory course of circuit theory, which mainly discusses the fundamental laws and theorems of lumped circuit, it also discusses basic calculation methods of circuit analysis. For communication engineering, this course mainly focuses on teaching the basic laws and theorems of lumped circuit and linear resistance circuit, the first order dynamic circuit, AC steady state circuit, and the three-phase circuit as well as basic analysis method of the coupling inductance circuit. The analysis of dynamic circuit, AC steady state circuit and phasor method will be the difficulties during learning this course.

编 码: EI05026**Code:** EI05026**课程名称:** 计算机通信与网络**Course Title:** Computer Communication and Networks**课程类别:** 专业核心**Course category:** Required Core Course**学 分:** 4**Credit(s):** 4**开课单位:** 信息科学与工程
学院**Offering College/School:** College of Computer Science and
Electronic Engineering

课程描述: 《计算机网络》是通信类专业本科生的一门核心专业课程,通过本课程的学习将要达到的主要目的是使学生了解计算机网络的基本知识,掌握计算机网络的基本概念和应用方法。主要任务是通过学习能够使学生在已有的计算机知识的基础上,对计算机网络从整体上有一个较清晰的全面、系统的了解,掌握计算机网络的基础知识,包括计算机网络的组成和工作原理、OSI/ISO 分层模型、数据封装、CSMA/CD/CA、TCP/IP 等各层协议和标准、常见网络形态和网络安全基本知识。

Course description: “Computer network” is a key course for the major of communication engineering, and after studying the lesson, students should have some essential knowledge about computer networks, grasp the basic concepts and application approaches at least. The main task of the course is to enable students to have a distinctly comprehensive and systematic understanding of computer networks, including OSI/ISO architecture, data encapsulation, CSMA/CD/CA protocol, TCP/IP protocol stack, sliding window algorithm, and some other common network form and network security measures, based on the basic knowledge of computer.

编 码: EI05027**Code:** EI05027**课程名称:** 信息与通信中的
数学基础**Course Title:** Mathematics in communications and Information**Course category:** Required Core Course**课程类别:** 专业核心**Credit(s):** 4**学 分:** 4**Offering College/School:** College of Computer Science and**开课单位:** 信息科学与工程
学院**Electronic Engineering**

课程描述: 本课程是工科通信与信息工程专业方向必修的专业基础课, 主要内容是复变函数、积分变换和数学物理方程, 目的主要在于紧密结合后续课程的学习和应用掌握相关数学问题的解决方案。课程侧重于对基本概念和解题方法的讲解, 简化基本概念的引入, 淡化理论证明和推导过程, 锻炼学生利用数学软件解决课程中数学推导和证明问题, 重点培养学生的推理、归纳、演绎和创新能力。通过每章典型例题和多样性习题, 有利于学生掌握所学内容, 提高学生分析问题、解决问题的能力。同时增加数学软件在复变函数与积分变换中的应用, 提高学生应用数学软件与编程的能力, 提高学生分析问题、解决问题的能力, 为后续通信专业课程的学习打下基础。

Course description: This course is a basic compulsory course for the students majoring in communications and information engineering. The main content includes complex analysis, integral transforms and Methods of Mathematical Physics and the value is the application for the incoming courses. This course pays more attention on the usage of the methods, but less attention on the derivation or prove of the theory by making using mathematic software. Through typical examples and diverse practices based on using mathematic software, this course is to cultivate students' abilities to solve problems.

编 码: EI05028	Code: EI05028
课程名称: 电磁场与电磁波 (含电磁场与电磁波实验)	Course Title: Electromagnetic Field and Wave (Experiments Included)
课程类别: 专业核心	Course category: Required Core Course
学 分: 4	Credit(s): 4
开课单位: 信息科学与工程学院	Offering College/School: College of Computer Science and Electronic Engineering

课程描述: 这是一门为通信类专业本科生开设的一门的理论性较强的专业核心课。课程的基本内容建立在时变场及其工程应用上,充分利用了电场和磁场以及其他方面的类比性。立足于最基本的电磁理论,进行了浓缩提炼,融入了现代电磁场数值分析、辐射和天线原理、通信用传输线、光电子的导波原理等前沿内容。书中提供了极为丰富的教学素材和源于生活、实际科研开发的生动实例,讲解细致精辟。本课程讲述电磁学的理论和基本公式,主要内容包括:矢量和场的基本概念、电场和磁场的概念、波的概念、时变场的麦克斯韦方程、传输线的时域分析和正弦稳态分析,以及与电子学、光子学相关的一些内容;最后还介绍了一些求解方法,如有限差分法、有限元法等。基本内容建立在时变场及其工程应用上,加强了本书对工程电磁学的一学期制学生的效用,同时使得计划上电磁学方面后续(选修的)课程的学生能够学到许多同样领域的概念,以及由传统分析方法提供的数学工具。

Course description: This course, with its versatile approach, includes thorough coverage of statics with an emphasis on the dynamics of engineering electromagnetics. It integrates practical applications, numerical details, and completely covers all relevant principles. Topics include vectors and fields, Maxwell's Equations, fields and waves, electromagnetic potentials, devices, circuits, and systems, and transmission-line essentials for digital electronics. The second part of the book covers communications, guided wave principles, electronics and photonics, and radiation and antennae. It integrates practical applications, numerical details, and completely covers all relevant principles. A valuable resource for computer engineering and electrical engineering professionals.

编 码: EI05029	Code: EI05029
课程名称: 电子线路(含电子线路实验)	Course Title: Electronic Circuit (Experiments Included)
课程类别: 专业核心	Course category: Required Core Course
学 分: 4	Credit(s): 4
开课单位: 信息科学与工程学院	Offering College/School: College of Computer Science and Electronic Engineering

课程描述: 本课程主要介绍模拟电子技术, 是一门电子技术方面入门性质的专业技术基础课。内容包括半导体基础知识, 放大电路基础, 多级放大电路, 集成运算放大电路, 放大电路的频率响应, 放大电路中的反馈, 信号的运算和处理, 波形的产生和信号的转换, 功率放大电路, 直流稳压电源等。《电子线路》课程通过对常用电子器件、模拟分立电路、集成电路及其系统的分析和设计的学习, 使学生系统地掌握电子线路的基本概念、基本原理和各种功能单元电路的工作原理和分析设计方法, 为电子系统的工程实践和后续课程学习打下必备的基础。

Course description: This course mainly introduces the analog electronic technology, is a professional basic course of electronic technology introduction properties. Content includes basic knowledge of semiconductor, basic amplifying circuit, multistage amplifier circuit, integrated operational amplifier circuit, amplifying circuit of frequency response, feedback of amplifier circuit, signal operation and processing, waveform and signal conversion, power amplification circuit, dc regulated power supply, etc. In the course of electronic circuit course, the study on the analysis and design of common electronic devices, analog discrete circuits, integrated circuits and systems, makes the students master the basic concepts, basic principles and working principles of various functional units and the design method of various functional units.

编 码: GE01088**Code:**GE01088**课程名称:** 计算机基本能力测试**Course Title:**Computer Proficiency Test**课程类别:** 通识必修**Course category:**Required General Education Course**学 分:** 0.5**Credit(s):**0.5**开课单位:** 信息科学与工程
学院**Offering College/School:**College of Computer Science and
Electronic Engineering

课程描述: 计算机操作能力测试是所有本科生必须通过的一门机器考试。该测试要求学生了解计算机基础知识,掌握在 Windows 操作系统中进行文件管理和系统设置,熟练使用字处理软件 Word 编制文档,Excel 电子表格软件处理数据,PowerPoint 软件制作演示文稿,从而培养学生运用计算机进行信息处理的技能。

Course description: Computer operation Ability test is a machine exam for all of the undergraduate students.The test requires student learn basic knowledge of computer, master how to manage files and configure system on windows operation system ,use Word edit documents , use Excel process data,use PowerPoint produce presentation files skillfully. By pass the exam,the students' skill of process information by computer will be trained.

编 码: GE01093	Code: GE01093
课程名称: 计算机导论与程序设计	Course Title: Introduction to Computer Science and Programming
课程类别: 通识必修	Course category: Required General Education Course
学 分: 2.5	Credit(s): 2.5
开课单位: 信息科学与工程学院	Offering College/School: College of Computer Science and Electronic Engineering

课程描述: 计算机导论 A 是针对全校大理工类大学新生的公共通识课程, 通过该课程的学习, 理解计算思维。掌握程序设计的思想、方法与基本技能, 从程序设计中体会与感悟计算思维。熟练掌握分析问题和解决问题的方法, 并通过 C 语言的输入输出、分支、循环、函数与文件操作, 解决专业中基础性计算问题。

Course description: The Introduction of Computer and C programming A is a general educational course for all freshman students of science and engineering. Through the course of study, students will understand the mind set of computation. Students are expected to master concepts, methods and basic techniques of programming design from which an understanding of computational thinking should be learned. Techniques for analyzing problems and solving problems are also a partial goal of the course. Concretely, students should be able to solve computational problems in their major with programming construct in C language such as inputs/outputs, branches, loops, functions and file operations.

编 码: GE01094	Code:GE01094
课程名称: 计算机导论与程序设计	Course Title: Introduction to Computer Science and Programming
课程类别: 通识必修	Course category: Required General Education Course
学 分: 2.5	Credit(s): 2.5
开课单位: 信息科学与工程学院	Offering College/School: College of Computer Science and Electronic Engineering

课程描述: 计算机导论 B（数据库）是非计算机专业的通识必修课，通过该课程的学习，使学生理解和掌握数据库系统的基本概念、基本原理及设计方法；掌握一种数据库前台语言的使用；具备设计简单数据库应用项目的能力，并适当了解现代数据库设计发展前沿现状。

Course description: Introduction to Computer Science (Database) is a General compulsory course of non-computer science during the undergraduate study. From the teaching, the student will know the concept of Database System, basic principal and designing method. This course will let the students know how to use a programming language of front Database. This course will train the capability of design in Database application project and let students realize the state of the art of the modern Database system .

编 码: GE01095	Code: GE01095
课程名称: 计算机导论与程序设计	Course Title: Introduction to Computer Science and Programming
课程类别: 通识必修	Course category: Required General Education Course
学 分: 2.5	Credit(s): 2.5
开课单位: 信息科学与工程学院	Offering College/School: College of Computer Science and Electronic Engineering

课程描述: 计算机导论 C(MATLAB+Mathematica)是针对全校大理工、财经类大学新生的公共通识课程,通过该课程的学习,理解计算思维,熟练掌握仿真与计算工具 MATLAB 的基本操作以及基本应用方法,具备 MATLAB 编程的基本能力,并初步了解 MATLAB 中各种工具箱的用途和使用方法。同时,通过本课程的学习,了解和掌握计算工具 Mathematica 的使用方法,能使用该基本工具进行数学计算。

Course description: Introduction to Computer Science (MATLAB& Mathematica) is a General compulsory course of non-computer science during the undergraduate study. From the teaching, the student will understand the Computing Thinking, Master the basic operation and basic application method of simulation and calculation tool MATLAB and Mathematica, Concretely, students should be able to solve computational problems in their major with programming construct in C language such as inputs/outputs, branches, loops, functions and file operations.

编 码: GE01105	Code: GE01105
课程名称: 计算机导论与程序设计	Course Title: Introduction to Computer Science and Programming
课程类别: 通识必修	Course category: Required General Education Course
学 分: 2.5	Credit(s): 2.5
开课单位: 信息科学与工程学院	Offering College/School: College of Computer Science and Electronic Engineering

课程描述: SPSS 因其易用性和强大的功能, 已成为文理各学科, 尤其是文史哲法社科等大文类和金融、经贸、管理等财经类科学研究最好的建模与实证分析科研工具之一。SPSS 课程的授课对象非常适合需要使用数据分析, 但是并未系统学习过统计理论的各专业行业应用人员, 非常适合以计算机思维为核心与桥梁, 开展跨学科计算机基础教育。本课程以项目实做教学为中心, 以计算机思维作为问题求解、系统设计的手段, 要求学生通过学习如何写研究报告和从事自己的研究项目来完成他们的 SPSS 课程。通过本课程训练, 学生将最终将善于利用数据用 SPSS 进行自己的独立研究项目。

Course description: This course is designed to teach students how to explore data in a systematic manner using the most popular professional social statistics program on the BIG DATA today. This course first introduces students to the approach researchers use to frame research questions and the logic of establishing causal relations. Students are then oriented to the SPSS program and how to examine data sets. Subsequent chapters guide them through univariate analysis, bivariate analysis, graphic analysis, and multivariate analysis. Students conclude their course by learning how to write a research report and by engaging in their own research project. Students will ultimately use these data to conduct their own independent research project with SPSS.

编 码: GE01106	Code: GE01106
课程名称: 计算机导论与程序设计	Course Title: Introduction to Computer Science and Programming
课程类别: 通识必修	Course category: Required General Education Course
学 分: 2.5	Credit(s): 2.5
开课单位: 信息科学与工程学院	Offering College/School: College of Computer Science and Electronic Engineering

课程描述: 本课程是一门面向大文科类专业的计算机基础课程。课程将以计算思维培养作为基本目标,使学生掌握基本的信息技术应用能力,掌握利用计算思维和计算工具解决专业领域问题的思路 and 做法。课程分成两个部分:第一部分是计算机导论,包括计算思维引论、计算机中的信息表示、计算机硬件系统、计算机软件系统介绍。目标是了解计算科学的基础知识,培养基本的计算思维。第二部分是多媒体技术及 office 高级应用,目标是掌握信息技术在办公和多媒体技术领域的应用能力。

Course description: This course is a basic course of computer to liberal arts majors. The course will take computational thinking training as the basic goal,After course, The students will master the basic applicational ability of information technology and get idea and method in solving professional problems with Computational Thinking and computational tools. The course is divided into two parts: a introduction to computer, including computational thinking introduction, representation of information in the computer, the computer hardware system and software system. The goal is to make the students get the basic knowledge of scientific calculation, calculation of the basic training of thinking. The second part is the application of advanced multimedia technology and office, The students will get the ability to deal application with technology in the office and multimedia.

编 码: BS04004	Code:BS04004
课程名称: 基础分析化学实验 A	Course Title:Basic Analytical Chemistry Experiment A
	Course category:Major Survey Course
课程类别: 学类核心	Credit(s):1
学 分: 1	Offering College/School:College of Chemistry and Chemical Engineering
开课单位: 化学化工学院	

课程描述: 基础分析化学实验 A 是生物技术专业的专业核心课程,以分析化学为先导课程。本课程包括色谱、光谱、电化学共 8 个实验,学生需了解电化学工作站、气相色谱仪、高效液相色谱仪、紫外分光光度计、荧光分光光度计等仪器的构造,掌握各种仪器的操作方法以及样品测定的原理与方法。通过本课程的学习学生有机会接触到各种先进的大型仪器,对其构造以及使用方法有了进一步的掌握,对微量分析有了更深刻的认识,更好地提高了学生的实验操作技能。通过实验数据的记录处理,图表的绘制培养了学生严谨务实的科学作风、树立了严格的“量”的概念,在培养生物技术专业人才方面都起着举足轻重的作用。

Course description: Basic Analytical Chemistry Experiment A is a basic course for majors of biotechnology, taking analytical chemistry as the leading courses. The main content is instrumental analytical chemical experiments about chromatograph, spectrum and electrochemistry. Students need to understand the structure of the electrochemical workstation, gas chromatograph, high performance liquid chromatograph, ultraviolet spectrophotometer, fluorescence spectrophotometer and so on, to master the operation method of various instruments and the principles and methods of sample determination. In the course of the study of instrumental analytical chemical experiments, students have opportunity to operate many advanced instruments, the structure and the use of the method can be further grasped, in the same time, they have a better understanding of the micro analysis, and their experimental operation skills can be further improved. By recording and processing the experimental data, drawing the chart, the students' rigorous and pragmatic scientific style can be cultivated, they will set up the concept "quantity" well. In a word, the analytical chemistry experiment plays an important role in the cultivation of biotechnology specialty.

编 码: BS04005**Code:**BS04005**课程名称:** 有机化学实验 B**Course Title:**Organic Chemistry Experiment B**课程类别:** 学类核心**Course category:**Major Survey Course**学 分:** 1**Credit(s):**1**开课单位:** 化学化工学院**Offering College/School:**College of Chemistry and Chemical Engineering

课程描述: 有机化学实验 B 是生物技术、生物医学工程专业学生的一门独立的基础必修课，是有机化学的重要组成部分。本课程的目的和任务主要是训练学生从事有机化学实验的基本技能，加深学生对化学理论知识的理解，提高其分析和解决问题的能力，培养其实事求是、严格认真的科学素养。本课程共有 5 次有机化合物的合成实验，学习制备、分离提纯及分析与鉴定有机化合物的方法和技术。本课程要求学生了解实验室安全知识、事故的预防与处理、常用仪器与装置的使用和安装、工具书和文献的查阅方法及实验记录与报告的撰写等知识；掌握熔沸点的测定、蒸馏、重结晶、萃取、色谱及升华等常用基础操作技术，学会减压蒸馏、分水器的使用、气体的吸收等实验操作技能。

Course description: As an important part of organic chemistry, Organic Chemistry Experiment B is an independent basic compulsory course for the students majored in biotechnology and biomedical engineering. The course is designed to give students hands-on training of the basic techniques used in organic chemistry experiment and further understanding of the chemical theoretical knowledge. It also aims to help students to develop their ability for analyzing and resolving problems, and to build themselves the scientific literacy with realistic and conscientious attitude. The Organic Chemistry Experiment B composed of five experiments of organic synthesis to study some basic methods and techniques for the preparation, separation, purification, analysis and identification of organic compound. Students must understand the knowledge of laboratory safety, prevention and treatment of accident, the usage and assembly of apparatus and instrument, and the critical review of reference book and literature. They should keep a lab notebook to summarize their laboratory findings, write down the discussions, and familiarize themselves with safety information sources. This course also requires students to master the general technology of basic operation like determination of melting and boiling point, distillation, recrystallization, extraction, chromatography and sublimation, as well as special experimental operation skills such as vacuum distillation, water separator, gas absorption.

编 码: BS04031	Code:BS04031
课程名称: 有机化学 B	Course Title:Organic Chemistry B
课程类别: 学类核心	Course category:Major Survey Course
学 分: 3	Credit(s):3
开课单位: 化学化工学院	Offering College/School:College of Chemistry and Chemical Engineering
课程描述: 有机化学 B 课程是一门面对全校生物专业同学开设的学类核心课程, 共有 48 学时理论课。本课程以普通化学为前导课程, 为生物专业后期课程如业生物化学等的学习打下基础。本课程以有机化合物结构与性能为主线, 将有机化合物按结构分为脂肪烃, 脂环烃、卤代烃、芳香烃、碳氧单键化合物、碳氧双键化合物和含氮及其杂环化合物分别进行阐述。课程从化合物的结构特征入手, 并重点介绍亲电加成、亲电取代、亲核加成、亲核取代、消除反应、重排反应及自由基反应等典型有机反应机理及相关化学反应。适当介绍立体化学和波谱学知识, 树立立体概念和解析简单有机化合物的结构。此外, 还适当增加生物学性质和应用方面知识, 引导学生如何从有机化学的角度看待问题, 拓宽学生知识面, 提高学生的科学素质。通过本课程的教学, 使学生掌握有机化学的基础知识和基本理论, 提高分析问题和解决问题的能力。 Course description: Organic chemistry B, as a central course in biologic chemistry, includes 48 hours course and 32 hours of experimental course. This course can be taken after General Chemistry (GE02006) to lay the foundation of subsequent courses study such as biologic chemistry. Based on the relationship between the structures and reactivities of organic compounds, the contents elaborate aliphatic hydrocarbons, alicyclic hydrocarbons, halogenated hydrocarbons, aromatic hydrocarbons, C-O bond compounds, C=O bond compounds as well as nitrogen containing and heterocyclic compounds classified by the structure and the properties of organic compounds. The content begins with the introduction of structural features of organic compounds. Typical organic reactions and reaction mechanisms with emphasis on the electrophilic addition, electrophilic substitution, nucleophilic addition, nucleophilic substitution, elimination, rearrangement and free radicals will be stressed. In addition, stereochemistry and spectroscopy will be also introduced to help students understand the stereochemical concept and analyze the structure of organic compounds. Besides, biological properties and applications of organic compounds will be added to help student look at problem from the perspective of organic chemistry, expand students' knowledge and improve students' scientific qualities. The main task of this course is to teach students the basic theories and knowledge of organic chemistry, and to improve the ability for analyzing and solving problems using Organic Chemistry.	

编 码: BS04033**Code:**BS04033**课程名称:** 分析化学**Course Title:**Analytical Chemistry**课程类别:** 学类核心**Course category:**Major Survey Course**学 分:** 3**Credit(s):**3**开课单位:** 化学化工学院**Offering College/School:**College of Chemistry and Chemical Engineering

课程描述: 分析化学是生物技术、生物医学工程专业的学类核心课程,以有机化学、高等数学和普通物理为先导课程,为获取物质的化学信息,研究物质的组成、状态和结构提供原理和手段。本课程主要讲授化学分析和仪器分析的基本概念、原理和方法,通过本课程的学习,系统地掌握酸碱滴定法、配位滴定法、氧化还原滴定法、沉淀滴定法和重量分析法的基本原理、特点及应用,掌握光化学分析、电化学分析及色谱分析的原理、仪器构造及定性定量分析方法。通过本课程的学习,初步具备选择分析方法、正确评价和表达分析结果的能力,树立严格的“量”的概念,培养综合运用所学知识分析和解决生活、学习以及生产实践中遇到的分析化学问题的能力。

Course description: Analytical chemistry is a professional core course for undergraduates majored in biotechnology and biomedical engineering after the study of higher mathematics, general physics and organic chemistry. This basic course provides principles and research methods for obtaining the chemical information including composition, state and structure of the matters. This course covers the basic theory, principle and knowledge of classic chemical analysis and advanced instrumental analysis. Students are expected to master the basic theories, characteristics and applications of the acid-base titration, the complexing equilibrium and titration, the redox titration, and the gravity analysis, familiar with the methods and instruments of optical analysis, electrochemical analysis and chromatography analysis. Through the study of this course, students have the ability to choose appropriate analytical method, correct evaluation and expression of the analytical results, thereby building the concept of strict "quantity". What's more, the study of this course will enable them to cultivate scientific thinking methods and improve the abilities of analyzing and solving the practical problems.

编 码: CE04011**Code:**CE04011**课程名称:** 无机化学 B**Course Title:**Inorganic Chemistry B**课程类别:** 学类核心**Course category:**Major Survey Course**学 分:** 3**Credit(s):**3**开课单位:** 化学化工学院**Offering College/School:**College of Chemistry and Chemical Engineering

课程描述: “无机化学 B”是给排水工程等与化学联系紧密的非化学专业的一门化学基础课，以中学化学、物理为前导课程，为进一步学习元素化学、高等无机化学、物理化学、结构化学等化学专业理论知识奠定基础。本课程主要包括：物质存在的形态、化学热力学、化学动力学、化学平衡、原子结构与元素周期律、化学键理论与分子结构；以及周期表各元素在自然界中的存在形式，单质的性质制备，化合物的性质及制备乃至应用。学生需了解整个化学的理论框架，理解各种元素周期表中各元素的化学通性，掌握化学学科基本的宏观和微观的基础理论，以及无机化学的基础知识，并能灵活运用化学反应的基本原理和物质结构的基本理论对无机化学的重要性质和变化规律加以解释。通过学习本课程，学生学会应用化学理论知识解决无机化学中的各种化学问题，锻炼和提升分析和解决一般化学问题的能力。

Course description: Inorganic chemistry B is a fundamental professional chemistry course for the non-chemical major of closely related to chemistry, such as water supply and drainage engineering. It is following the high school chemistry and physics course, and establishes a theoretical foundation to carry on the following courses, such as element chemistry, advance inorganic chemistry, physical chemistry, structure chemistry, and so on. This course is mainly including: matter states, atom structure, and periodic rule of elements, chemical bond and molecular structure, chemical thermodynamics, chemical kinetics, chemical equilibrium, natural states of family elements in periodic system, preparation and properties of simple substances, and preparation and properties and application of compounds. Students is required to know the whole theoretical frame of chemistry, and comprehend the common properties of family elements in periodic system, and master the macro or micro fundamental chemical theories and basic chemical knowledge of inorganic chemistry, further to proficiently explain those important properties and their changing orderliness of elements and inorganic compounds on the base of the chemical reaction fundamentals, the basic theories of matter structure. The objective of this course is to make students develop the capability to analyze and solve common inorganic chemistry problems basing on the fundamental chemical theories, and further promote the students' abilities to solve the universal chemical problems.

编 码: CE04014**Code:**CE04014**课程名称:** 物理化学 B**Course Title:**Physical chemistry B**课程类别:** 学类核心**Course category:**Major Survey Course**学 分:** 3**Credit(s):**3**开课单位:** 化学化工学院**Offering College/School:**College of Chemistry and Chemical Engineering

课程描述: 本课程是排水科学与工程专业的学类核心课程,以高等数学、大学物理为前导课程,为排水科学与工程提供基础理论和实验方法。本课程主要包括化学热力学定律、化学平衡、相平衡、电化学、化学动力学、胶体与界面化学。学生需要了解物理化学的基本知识与环境工程技术的关系,需要掌握过程方向进行的判据和限度、简单化学反应速率、电化学基本原理以及表面和胶体特性,需要理解化学和物理过程、化学能与电能之间的转化、表面和胶体与本体性质的差异。通过该课程的学习,学生学会物理化学的基本知识和理论,获得采用物理化学思维解决科学技术问题的能力。

Course description: It is a compulsory central course for undergraduates majoring in Drainage Science and Engineering after Advanced Mathematics, General Physics, Inorganic Chemistry, aiming at providing basic theories and research methods for drainage science and engineering. It includes laws of chemical thermodynamics, chemical equilibrium, phase equilibrium, electrochemistry, chemical kinetics, and colloid and interface chemistry. Students need learn the relation between the basic knowledge of physical chemistry and drainage science and engineering, grasp the criterion and the limitation of chemical and physical process direction, the reaction rate of simple chemical reaction, the basic principle of electrochemistry, and the properties of interface and colloid, and understand chemical and physical process, the conversion from chemical energy to electric energy, and the difference of surface and colloid from bulk material, Through studying this subject, students will learn scientific thinking method and have the ability to deal with scientific and technological problems related to physical chemistry.

编 码: CE04015**Code:**CE04015**课程名称:** 有机化学 B**Course Title:**Organic Chemistry B**课程类别:** 学类核心**Course category:**Major Survey Course**学 分:** 3**Credit(s):**3**开课单位:** 化学化工学院**Offering College/School:**College of Chemistry and Chemical Engineering

课程描述: 有机化学 B 是给排水专业的学类核心课程,以无机化学为前导课程,通过系统学习各类有机化合物的结构和性质的关系及其相互转变的内在联系,使学生掌握有机化学的基础知识、基本理论和基本实验技能,并了解该领域的新成果和发展动态,提高学生灵活运用、综合分析和解决问题的能力,为学习后续学类核心课、专业核心课奠定坚实的基础。本课程由理论课(48 学时)和实验课(16 学时)两部分组成。通过本课程的教学,学生需要: 1) 掌握有机物的命名、结构、性质等内容; 2) 掌握一般有机化合物的合成方法等基本知识; 3) 理解有机反应的基本原理及规律; 4) 理解结构—性质—应用之间的关系; 5) 具备一定的实验技能; 6) 能够灵活运用相关知识分析和解决实际问题。

Course description: Organic chemistry B is a professional education course for students major in water supply and drainage, whose preceding course is inorganic chemistry. By studying the relationship between structure and property, students will not only master the basic knowledge, fundamental theory and primary laboratory skills of organic chemistry, but also get information about the new achievement and development of this field. At the same time, students will further develop their analyzing ability and problem-solving skill. All of these provide a firm foundation for the continued study of other professional education or specialized education courses. Organic chemistry includes theory courses(48 hours) and experiment courses(16 hours). After taking this course, the students are required to: 1) master nomenclature, structures, properties of organic compound and so on. 2) master basic knowledge such as synthetic methods of common compounds. 3) understand the basic principles and regularities of organic reactions. 4) understand the relationship among structure, property and application. 5) have certain experimental skills. 6) analyze and solve practical problems flexibly with relevant knowledge.

编 码: CH04021**Code:**CH04021**课程名称:** 化学实验室安全技术**Course Title:**Safety in Chemistry Lab**课程类别:** 学类核心**Course category:**Major Survey Course**学 分:** 1**Credit(s):**1**开课单位:** 化学化工学院**Offering College/School:**College of Chemistry and Chemical Engineering

课程描述: 本课程是化学与应化专业的学类核心课程,以高中化学为前导课程,为化学实验室涉及安全的相关实验、操作和管理方面的知识学习与学习提供基础。本课程主要包括化学实验室的规范化管理和安全意识建立,实验室事故的应急处置措施和一般原则,易燃、易爆、有毒化学品的安全使用、废弃及储存,辐射的相关知识及防护,高温、高压、低温和加热设备的安全使用等。学生需了解实验室的安全管理基本原则,理解实验室安全的重要性和紧迫性,掌握实验室一般事故的预防和应急处理措施,并能灵活运用涉及化学品安全内容的知识安全使用、处置和储存相关化学品。通过本课程,学生学会在化学实验室中采取的防护措施和需要注意的安全原则,获得安全意识,锻炼和提升分析和处理化学实验室的安全事故的能力,为进入实验室的安全操作与学习奠定不可或缺的基础。

Course description: Safety in Chemistry Lab is one of the core courses for students majoring in Chemistry and Applied Chemistry, which provides a basis and direction for further learning in laboratory safety related experiments, operation and management. High school chemistry is a prerequisite for this course. The contents of this course include: lab management and safety consciousness in the lab, precautions and emergencies, usage, storage and disposal of flammable, explosive or toxic chemicals, radiation safety, utilities and risk assessment, etc. It is required to comprehend the basic principles of lab management for safety, understand the vitality and significance of the lab safety, know well the experiment precautions and emergency response, and apply the knowledge of chemistry to use, store and dispose chemicals safely. Through this lecture, the knowledge of using, storing and disposing chemicals from the perspective of safety is gained, the foundation of lab safety consciousness is built upon, and the ability to analyze and solve lab safety related problems is acquired.

编 码: CH04022**Code:**CH04022**课程名称:** 化学类专业导论(研讨课)**Course Title:**Introduction to Chemistry Engineering(Seminar)**课程类别:** 学类核心**Course category:**Major Survey Course**学 分:** 1**Credit(s):**1**开课单位:** 化学化工学院**Offering College/School:**College of Chemistry and Chemical Engineering

课程描述: 本课程是应用化学专业低年级新生的必修课。本课程主要包括应用化学专业介绍及本专业所涉及的主要研究方向及应用介绍,通过学习本课程,学生对本专业特色、应用化学专业所涉及的腐蚀与防护领域、应用电化学领域、表面工程技术领域、材料科学与技术领域及化学能源领域的基本原理和发展有一定的了解。通过本课程学习,培养学生科学的思维方法、提高分析问题和解决问题的能力,为学生将来深入学习无机化学、有机化学、分析化学、物理化学、电化学动力学、高分子化学与涂料等专业课程提供必要的基础。

Course description: This is an obligatory course for new students majoring in applied chemistry. The objectives of this course are to enable students to achieve a comprehensive understanding related to characteristics of applied chemistry major, the basic knowledge and research progress of metal corrosion and protection, applied electrochemistry, surface engineering technology, polymer science and chemical energy source. The main task of this course study is to develop students' scientific thinking methods, improve the ability to analyze problems and solve problems. This course initiates the student into in-depth study of professional courses such as inorganic chemistry, organic chemistry, analytical chemistry, physical chemistry, electrochemical kinetics, polymer chemistry and organic coating and other professional courses .

编 码: CH04022**Code:**CH04022**课程名称:** 化学类专业导论**Course Title:**Introduction to Chemistry (Seminar)**课程类别:** 学类核心**Course category:**Major Survey Course**学 分:** 1**Credit(s):**1**开课单位:** 化学化工学院**Offering College/School:**College of Chemistry and Chemical Engineering

课程描述: 《化学类专业导论》是一门必修的化学基础导论课程。通过该课程的教学使学生能够初步了解化学的魅力和化学研究的广泛性,激励学生对化学基本问题的思考。通过对化学的理解,对培养学生科学的思维方法、提高分析问题和解决问题的能力都能起到积极的作用,为学生将来深入学习无机化学、有机化学、分析化学、物理化学、材料化学、环境化学、药物化学等专业课程提供必要的基础。本课程授课内容将涵盖生命化学,能源化学,材料化学,环境化学等相关交叉学科的基本概念和最新学术前沿课题,在此基础上,让学生了解和认识化学的重要性及其在工业生产中的重要地位。

Course description: “Introduction of Chemistry” is a compulsory course on the basis of fundamental chemistry, enabling students to preliminary experience chemistry features and researches. The basic issues of chemistry will be illustrated during the course, and encourage students to think about the involved chemical process. Moreover, the participators will improve their ability in problem-analyzing and problem-solving by fundamental understand of chemistry. Importantly, this course initiated the student into in-depth study of professional courses such as inorganic chemistry, organic chemistry, analytical chemistry, physical chemistry, materials chemistry, environmental chemistry, and pharmaceutical chemistry. The content of this course covers the fundamental concepts and the frontier researches in the field of Life Chemistry, Energy Chemistry, Material Chemistry, and Environmental Chemistry etc. On the basis of the study, students could realize the important role of Chemistry.

编 码: CH04023**Code:**CH04023**课程名称:** 无机化学(1)**Course Title:**Inorganic Chemistry(1)**课程类别:** 学类核心**Course category:**Major Survey Course**学 分:** 3.5**Credit(s):**3.5**开课单位:** 化学化工学院**Offering College/School:**College of Chemistry and Chemical Engineering

课程描述: 无机化学是化学和应用化学专业本科生的专业核心课程。以中学物理、化学为前导课程,并为后续专业课程的学习奠定不可或缺的基础。无机化学是研究无机物质的组成、结构、性质和理论的科学,研究对象涵盖了除有机化合物以外的所有元素及其化合物。通过本课程的教学,使学生掌握原子结构和分子结构的基本知识,掌握各族元素及其重要化合物的性质和变化规律。掌握价键理论、晶体场理论、分子轨道理论,并能熟练运用它们对物质的结构及性质做出解释。初步掌握实验的基本技能,使学生在科学思维能力上得到初步的训练和培养。

Course description: Inorganic Chemistry is a core course for majors of Chemistry and Applied Chemistry. Chemistry and Physics courses in high school are the preliminary courses for the study. Inorganic Chemistry lays essential foundations for further study on other professional curriculums. Inorganic Chemistry is a science on studying the composition, structure, property and theory of substances. The object of the study concerns all the elements and compounds except organic compounds. In the course, students would learn basic knowledge of atomic and molecule structures, element properties and rules. The learning of theory (such as valence bond theory, hybrid orbital theory, metal band theory, crystal field theory, molecular orbital theory, et al), enables students to master the basic knowledge about atomic structures and molecular structures, grasp the properties and the variation of the elements and their important compounds, understand the connection between material structures and material properties, apply the theory knowledge to explain the relative phenomena. The experimental teaching, at the same time, makes the students combine the theory and experiments, consolidate the knowledge, train the ability of solving the problem.

编 码: CH04025**Code:**CH04025**课程名称:** 无机化学(2)**Course Title:**Inorganic Chemistry(2)**课程类别:** 学类核心**Course category:**Major Survey Course**学 分:** 2.5**Credit(s):**2.5**开课单位:** 化学化工学院**Offering College/School:**College of Chemistry and Chemical Engineering

课程描述: 无机化学是化学和应用化学专业本科生的专业核心课程。以中学物理、化学为前导课程,并为后续专业课程的学习奠定不可或缺的基础。无机化学是研究无机物质的组成、结构、性质和理论的科学,研究对象涵盖了除有机化合物以外的所有元素及其化合物。通过本课程的教学,使学生掌握原子结构和分子结构的基本知识,掌握各族元素及其重要化合物的性质和变化规律。掌握价键理论、晶体场理论、分子轨道理论,并能熟练运用它们对物质的结构及性质做出解释。初步掌握实验的基本技能,使学生在科学思维能力上得到初步的训练和培养。

Course description: Inorganic Chemistry is a core course for majors of Chemistry and Applied Chemistry. Chemistry and Physics courses in high school are the preliminary courses for the study. Inorganic Chemistry lays essential foundations for further study on other professional curriculums. Inorganic Chemistry is a science on studying the composition, structure, property and theory of substances. The object of the study concerns all the elements and compounds except organic compounds. In the course, students would learn basic knowledge of atomic and molecule structures, element properties and rules. The learning of theory (such as valence bond theory, hybrid orbital theory, metal band theory, crystal field theory, molecular orbital theory, et al), enables students to master the basic knowledge about atomic structures and molecular structures, grasp the properties and the variation of the elements and their important compounds, understand the connection between material structures and material properties, apply the theory knowledge to explain the relative phenomena. The experimental teaching, at the same time, makes the students combine the theory and experiments, consolidate the knowledge, train the ability of solving the problem.

编 码: CH04026**Code:**CH04026**课程名称:** 有机化学(1)**Course Title:**Organic Chemistry(1)**课程类别:** 学类核心**Course category:**Major Survey Course**学 分:** 2**Credit(s):**2**开课单位:** 化学化工学院**Offering College/School:**College of Chemistry and Chemical Engineering

课程描述: 本课程是化学、应化专业的学类核心课程,以无机化学为前导课程,通过系统学习各类有机化合物的结构和性质的关系及其相互转变的内在联系,使学生掌握有机化学的基础知识、基本理论,并了解该领域的新成果和发展动态,提高学生灵活运用、综合分析和解决问题的能力,为学习后续学类核心课、专业核心课奠定坚实的基础。主要教学内容包括:

(1) 有机化合物的分类和命名;(2) 有机化合物的结构及分子中原子间的相互影响;(3) 脂肪烃、脂环烃及芳烃的物理性质及典型变化规律;(4) 脂肪烃、脂环烃及芳烃的重要化学反应及其规律。授课方式拟采用课堂讲授、讨论和自学相结合的方法。课堂教授的时间为 30 学时,课堂讨论 2 学时。

Course description: Organic chemistry is a professional education course for students major in chemistry and applied chemistry, whose preceding course is inorganic chemistry. By studying the relationship between structure and property, students will not only master the basic knowledge, fundamental theory of organic chemistry, but also get information about the new achievement and development of this field. At the same time, students will further develop their analyzing ability and problem-solving skill. All of these provide a firm foundation for the continued study of other professional education or specialized education courses. The teaching content includes: (1) the classification of organic compounds and their nomenclature. (2) structure of organic compounds and interactions of the different atoms. (3) the physical properties of fatty hydrocarbons, alicyclic hydrocarbons and aromatic hydrocarbons. (4) the important chemical reactions of fatty hydrocarbons, alicyclic hydrocarbons and aromatic hydrocarbons and their mechanisms. This course includes two parts, namely, classroom teaching (30h) and discussion (2h).

编 码: CH04027**Code:**CH04027**课程名称:** 有机化学(2)**Course Title:**Organic Chemistry(2)**课程类别:** 学类核心**Course category:**Major Survey Course**学 分:** 4**Credit(s):**4**开课单位:** 化学化工学院**Offering College/School:**College of Chemistry and Chemical Engineering

课程描述: 本课程是化学、应化专业的学类核心课程，以无机化学为前导课程，通过系统学习各类有机化合物的结构和性质的关系及其相互转变的内在联系，使学生掌握有机化学的基础知识、基本理论，并了解该领域的新成果和发展动态，提高学生灵活运用、综合分析和解决问题的能力，为学习后续学类核心课、专业核心课奠定坚实的基础。本课程将涵盖反应、机理、合成方法、结构测定以及各种官能团的性质，包括二烯烃、芳烃、羰基化合物、羧酸及其衍生物、酚类、胺类以及生化物质如糖类、脂类、氨基酸和蛋白质。重点突出结构和活性之间的关系。会介绍一些相应的专题使学生明确有机化学在生物学、医学以及化工方面的重要作用。课堂教授的时间为 62 学时，课堂讨论 2 学时。

Course description: Organic chemistry is a professional education course for students major in chemistry and applied chemistry, whose preceding course is inorganic chemistry. By studying the relationship between structure and property, students will not only master the basic knowledge, fundamental theory of organic chemistry, but also get information about the new achievement and development of this field. At the same time, students will further develop their analyzing ability and problem-solving skill. All of these provide a firm foundation for the continued study of other professional education or specialized education courses. This course will cover the reactions, mechanisms, synthesis, structure determination and properties of various functional groups including dienes, arenes, carbonyls, carboxylic acid and their derivatives, phenols, amines as well as biochemicals such as carbohydrates, lipids, amino acids and proteins. The relationships between structure and reactivity are emphasized. Special topics in organic chemistry are included to illustrate the role of organic chemistry in biological systems, medicine, and in the chemical industry. This course includes two parts, namely, classroom teaching (62h) and discussion (2h).

编 码: CH04028**Code:**CH04028**课程名称:** 分析化学(1)**Course Title:**Analytical Chemistry (1)**课程类别:** 学类核心**Course category:**Major Survey Course**学 分:** 2**Credit(s):**2**开课单位:** 化学化工学院**Offering College/School:**College of Chemistry and Chemical Engineering

课程描述: 分析化学(1)是化学、应用化学专业的学类核心课,以无机化学为先导课程,为获取物质的化学信息,研究物质的组成、状态和结构提供原理和手段。本课程主要讲授化学分析的基本概念、原理和方法,通过本课程的学习,掌握分析质量保证相关的概念与方法,系统地掌握酸碱滴定法、配位滴定法、氧化还原滴定法、沉淀滴定法和重量分析法的基本原理、特点及应用。通过本课程的学习,初步具备选择化学分析方法、正确评价和表达分析结果的能力,树立严格的“量”的概念,加强科学思维和科研创新能力培养,提高综合运用所学化学分析知识解决实际问题的能力。

Course description: Analytical chemistry(1) is a professional core course for undergraduates majored in chemistry and applied chemistry after the study of inorganic chemistry. This basic course provides principles and research methods for obtaining the chemical information including composition, state and structure of the matters. This course covers the basic theory, principle and knowledge of classic chemical analysis. Students are expected to master the concepts and methods of quality assurance, grasp the basic theories, characteristics and applications of the acid-base titration, the complexing equilibrium and titration, the redox titration, and the gravity analysis. Through the study of this course, students will have the ability to choose appropriate analytical method, correct evaluation and expression of the analytical results, thereby building the concept of strict "quantity". What's more, this course plays an important role in training students' abilities of scientific mind, scientific research and innovation, improving the abilities of solving practical problems with the knowledge they have learned.

编 码: CH04029**Code:**CH04029**课程名称:** 分析化学(2)**Course Title:**Analytical Chemistry (2)**课程类别:** 学类核心**Course category:**Major Survey Course**学 分:** 4**Credit(s):**4**开课单位:** 化学化工学院**Offering College/School:**College of Chemistry and Chemical Engineering

课程描述: 分析化学(2)是一门化学专业的学类核心课,以无机化学为先导课程,为获取物质的化学信息,研究物质的组成、状态和结构提供仪器分析的原理和手段。本课程主要讲授光分析、电分析、色谱分析和波谱分析的基本原理、仪器方法及实际应用,内容包括:紫外可见光谱法、原子发射光谱法、原子吸收光谱法、荧光、磷光、化学发光分析法、现代光谱与成像分析、电位分析法、电解与库仑分析法、伏安与极谱法、气相色谱法、高效液相色谱法、毛细管电泳、红外光谱法、核磁共振波谱法和质谱法。该课程的学习,要求学生系统掌握各类仪器分析方法的基本原理、仪器结构,熟悉各仪器分析方法的应用对象及分析过程,了解当今世界各类仪器及分析方法的发展趋势。通过本课程的学习,树立严格的“量”的概念,培养科学思维和科研创新能力,提高综合运用所学分析化学知识解决实际问题的能力。

Course description: Analytical chemistry(2) is a professional core course for undergraduates majored in chemistry after the study of inorganic chemistry. This basic course provides instrumental principles and research methods for obtaining the chemical information including composition, state and structure of the matters. The principles and applications associated with modern optical, electrochemical, chromatographic and spectroscopic analysis will be presented, which includes the UV-visible spectrometry, atomic emission spectrometry, atomic absorption spectroscopy, fluorescence, phosphorescence and chemical luminescence analysis, modern spectral and imaging analysis, potentiometric analysis methods, electrolysis and coulomb analysis methods, voltammetry and polarography, gas chromatography, HPLC, capillary electrophoresis, infrared spectroscopy, nuclear magnetic resonance spectroscopy and mass spectrometry. Students are expected to master the basic principles and the structure of the instruments, familiar with the application object and analysis process of the methods, understand the developing tendency of modern instrumental analysis, thereby, build the concept of strict "quantity". What's more, this course plays an important role in training students' scientific thinking and innovation ability, improving the abilities of solving practical problem use what they learned.

编 码: CH04031**Code:**CH04031**课程名称:** 基础化学操作实验**Course Title:**Basic operation of chemistry experiment**课程类别:** 学类核心**Course category:**Major Survey Course**学 分:** 1**Credit(s):**1**开课单位:** 化学化工学院**Offering College/School:**College of Chemistry and Chemical Engineering

课程描述: 基础化学操作实验是化学及相关专业学生的一门独立的基础必修课，以实验技能训练为主。本课程包括无机化学实验，分析化学实验和有机化学实验三个部分的内容。学生通过学习本课程学会规范的基本操作，掌握基本的实验技能，逐步学会准确地观察和分析化学反应现象以及处理数据的方法，提高分析问题和解决问题的能力，为后续的实验课程学习打下良好的基础。

Course description: Basic operation of chemistry experiment is an independent basic compulsory course for the students majored in chemical and related majors. It is mainly based on experimental skills training. The course includes three parts: inorganic chemistry experiment, organic and analytical chemistry experiments. It is designed to give students hands-on training of the basic techniques used in chemistry experiment and further understanding of the chemical theoretical knowledge. It also aims to help students to develop their ability for analyzing and resolving problems, and to build themselves the scientific literacy with realistic and conscientious attitude. Finally, basic operation of chemistry experiment helps the students to build the solid foundation for the follow-up courses.

编 码: CH04032(-33)	Code: CH04032(-33)
课程名称: 基础无机化学实验	Course Title: Basic Inorganic Chemistry Experiment
课程类别: 学类核心	Course category: Major Survey Course
学 分: 2	Credit(s): 2
开课单位: 化学化工学院	Offering College/School: College of Chemistry and Chemical Engineering

课程描述: 无机化学实验课程是化学专业和应用化学专业的专业核心课程,以《无机化学》为前导课程。该课程有其自身特点,自成体系,以实验技能训练为主,与理论课相互独立开设,通过学习本课程加深对无机化学课程的基本理论和基础知识的理解。本课程主要包括基本操作实验、基本原理实验、元素化学实验和综合设计实验四个部分的内容。学生需要进行课前预习,理解实验原理,了解操作要点和注意事项等。通过学习本课程,学生学会规范的基本操作,掌握基本的实验技能,逐步学会准确地观察和分析化学反应现象以及处理数据的方法,提高分析问题和解决问题的能力,为后续的课程、科学研究和今后参加实际工作打下良好的化学基础。

Course description: Inorganic chemistry experiment is a core course for the students that major in chemistry and chemical application. The "inorganic chemistry" is the leading courses. It is one of independent course in order to improve the experiment skill of the students and is not attached to any theory courses, through the study of this course studens can deepen the understanding of the basic theory and basic knowledge of inorganic chemistry course. This course is divided into four parts,fundamental operation experiments,fundamental principles experiments, chemical elements analysis and comprehensive design experiments. Students need to preview before class, understand the principle of experiment, understand the operation points and precautions. Through the study of this course, students learn to regulate the basic operation, master basic experimental skills, and gradually learn to accurately observe and analyze the phenomenon of chemical reaction and processing data, improve the ability to analyze and solve problems. Finally, inorganic chemistry experiment helps the students to build the solid foundation for the follow-up courses, scientific research and the future to participate in the actual work.

编 码: CH04034**Code:**CH04034**课程名称:** 基础分析化学实验(1)**Course Title:**Basic Analytical Chemistry Experiment (1)**课程类别:** 学类核心**Course category:**Major Survey Course**学 分:** 1**Credit(s):**1**开课单位:** 化学化工学院**Offering College/School:**College of Chemistry and Chemical Engineering

课程描述: 基础分析化学实验(1)是化学、应用化学专业的专业核心课程,以无机化学、分析化学为先导课程。本课程主要包括酸碱滴定、配位滴定、氧化还原滴定、沉淀滴定实验、综合实验和设计实验共八个实验。学生需了解滴定过程中指示剂的变色原理与使用方法;理解四种滴定方法测定样品的原理,掌握称量、滴定的操作要领,以及滴定管、移液管等容量器皿的使用方法。通过本课程的学习使学生在接受严格的分析化学实验基本操作训练的基础上,在动手能力、实验技能、严谨的科学作风,实事求是的科学态度以及探索和开拓意识、独立分析与解决实际问题的能力、踏实有序而又讲求效率的工作作风等诸方面都能得到一定的培养和锻炼。

Course description: Basic Analytical Chemistry Experiment (1) is a basic course for majors of chemistry and applied chemistry, taking inorganic chemistry and analytical chemistry as the leading courses. This course of a total of eight experiments mainly includeing acid base titration, coordination titration, redox titration, precipitation titration experiments, comprehensive experiment and designed experiment. Students need to understand the color changing principles and using methods of the indicator in the titration process, to catch on the principles of the four titration methods for the determination of samples, to maseter the operation method of weighing, titration, and using method of burets, pipette, etc.. On the basis of the rigorous training of basic experimental operation, this course tries to make students get a series of trainings and exercises in the manipulative ability, the experimental skills, rigorous scientific style, the scientific attitude of seeking truth from facts, exploration and pioneering consciousness and the ability to solve practical problems, independent analysis and solving practical problems, practical work style and other aspects.

编 码: CH04035**Code:**CH04035**课程名称:** 基础分析化学实验(2)**Course Title:**Basic Analytical Chemistry Experiment (2)**课程类别:** 学类核心**Course category:**Major Survey Course**学 分:** 1**Credit(s):**1**开课单位:** 化学化工学院**Offering College/School:**College of Chemistry and Chemical Engineering

课程描述: 基础分析化学实验(2)是化学、应用化学专业的专业核心课程。以无机化学、分析化学和仪器分析为先导课程。本课程包括色谱、光谱、电化学共 8 个实验, 学生需了解电化学工作站、气相色谱仪、高效液相色谱仪、紫外分光光度计、荧光分光光度计等仪器的构造, 掌握各种仪器的操作方法以及样品测定的原理与方法。通过本课程的学习学生有机会接触到各种先进的大型仪器, 对其构造以及使用方法有了进一步的掌握, 对微量分析有了更深刻的认识, 更好地提高了学生的实验操作技能。通过实验数据的记录处理, 图表的绘制培养了学生严谨务实的科学作风、树立了严格的“量”的概念, 在培养化学专业人才方面都起着举足轻重的作用。

Course description: Basic Analytical Chemistry Experiment (2) is a basic course for majors of chemistry and applied chemistry, taking inorganic chemistry , analytical chemistry and instrument analysis as the leading courses. The main content is instrumental analytical chemical experiments about chromatograph, spectrum and electrochemistry. Students need to understand the structure of the electrochemical workstation, gas chromatograph, high performance liquid chromatograph, ultraviolet spectrophotometer, fluorescence spectrophotometer and so on, to master the operation method of various instruments and the principle and method of sample determination. In the course of the study of instrumental analytical chemical experiments, students have opportunity to operate many advanced instruments, the structure and the use of the method can be further grasped, in the same time, they have a better understanding of the micro analysis, and their experimental operation skills can be further improved. By recording and processing the experimental data, drawing the chart, the students' rigorous and pragmatic scientific style can be cultivated, they will set up the concept "quantity" well. In a word, the analytical chemistry experiment plays an important role in the cultivation of chemistry specialty.

编 码: CH04036**Code:**CH04036**课程名称:** 基础物理化学实验(1)**Course Title:**Basic Physical Chemistry Experiment(1)**课程类别:** 学类核心**Course category:**Major Survey Course**学 分:** 2**Credit(s):**2**开课单位:** 化学化工学院**Offering College/School:**College of Chemistry and Chemical Engineering

课程描述: 基础物理化学实验(1)是研究物质的物理性质与其化学反应间关系的一门实验科学。这是一门为化学、应化专业学生开设的专业基础课程。作为一门独立的课程,它是继无机化学与分析化学和物理化学等前修课程之后的一门综合基础化学实验课,它综合了化学领域中各分支所需的研究工具和方法。本课程主要包括热力学、动力学、电化学和胶体界面化学等方面的实验内容,学习该课程不仅有助于对理论知识的认识和理解,而且会使学生的化学实验技能和相互协作能力得到进一步的培养和提高。学生通过测量和记录大量的实验数据,观察实验现象,转换和处理大量数据,绘制很多图表,讨论思考题等,进一步加深他们对理论知识的理解,从而培养学生实事求是的科学态度,严谨细致的工作作风,熟练正确的实验技能,分析问题和解决问题的能力等,为今后从事科研工作奠定良好的基础。

Course description: Basic Physical Chemistry Experiment(1) is an Experimental Science which studies the physical properties of materials and inter-relationship between these properties and chemical reactions. This is a basic course for majors of Chemistry and Applied Chemistry. As a stand-alone course, it is a consolidated basis Chemistry Experiments following some pre-requisites such as Inorganic Chemistry, Analytical Chemistry and Physical Chemistry. It combines research tools and methods which are needed in the various branches of the chemical field. It includes chemical thermodynamics, chemical dynamics, electrochemistry, and colloid and interface chemistry. It helps students master basic methods and skills of Physic Chemistry Experiment, record experimental data and phenomena correctly, form their ability of correctly processing experimental data and analytical results, enhance the understanding of basic theories and concepts, master the basic principles and methods of physical chemistry and scientific research, improve their ability of flexibly using physical chemistry principles to solve chemical problems. The task of this course is to achieve the above goals step by step through Physical Chemistry Experiment and form students' ability of taking up teaching and scientific research independently.

编 码: CH04037**Code:**CH04037**课程名称:** 基础物理化学实验(2)**Course Title:**Basic Physical Chemistry Experiment(2)**课程类别:** 学类核心**Course category:**Major Survey Course**学 分:** 1**Credit(s):**1**开课单位:** 化学化工学院**Offering College/School:**College of Chemistry and Chemical Engineering

课程描述: 基础物理化学实验(2)是研究物质的物理性质与其化学反应间关系的一门实验科学。这是一门为化学、应化专业学生开设的专业基础课程。作为一门独立的课程,它是继无机化学与分析化学和物理化学等前修课程之后的一门综合基础化学实验课,它综合了化学领域中各分支所需的研究工具和方法。本课程主要包括热力学、动力学、电化学和胶体界面化学等方面的实验内容,学习该课程不仅有助于对理论知识的认识和理解,而且会使学生的化学实验技能和相互协作能力得到进一步的培养和提高。学生通过测量和记录大量的实验数据,观察实验现象,转换和处理大量数据,绘制很多图表,讨论思考题等,进一步加深他们对理论知识的理解,从而培养学生实事求是的科学态度,严谨细致的工作作风,熟练正确的实验技能,分析问题和解决问题的能力等,为今后从事科研工作奠定良好的基础。

Course description: Basic Physical Chemistry Experiment(2) is an Experimental Science which studies the physical properties of materials and inter-relationship between these properties and chemical reactions. This is a basic course for majors of Chemistry and Applied Chemistry. As a stand-alone course, it is a consolidated basis Chemistry Experiments following some pre-requisites such as Inorganic Chemistry, Analytical Chemistry and Physical Chemistry. It combines research tools and methods which are needed in the various branches of the chemical field. It includes chemical thermodynamics, chemical dynamics, electrochemistry, and colloid and interface chemistry. It helps students master basic methods and skills of Physic Chemistry Experiment, record experimental data and phenomena correctly, form their ability of correctly processing experimental data and analytical results, enhance the understanding of basic theories and concepts, master the basic principles and methods of physical chemistry and scientific research, improve their ability of flexibly using physical chemistry principles to solve chemical problems. The task of this course is to achieve the above goals step by step through Physical Chemistry Experiment and form students' ability of taking up teaching and scientific research independently.

编 码: CH04039**Code:**CH04039**课程名称:** 基础有机化学实验(1)**Course Title:**Basic Organic Chemistry Experiment(1)**课程类别:** 学类核心**Course category:**Major Survey Course**学 分:** 1**Credit(s):**1**开课单位:** 化学化工学院**Offering College/School:**College of Chemistry and Chemical Engineering

课程描述: 基础有机化学实验(1)是化学和应用化学专业学生的一门独立的基础必修课。本课程的目的和任务主要是训练学生从事有机化学实验的基本技能,加深学生对化学理论知识的理解,提高分析和解决问题的能力,培养实事求是、严格认真的科学素养。本课程共有 5 次有机物的合成实验,学习制备、分离与鉴定有机物的方法和技术;本课程要求学生了解安全知识、事故的预防与处理、常用仪器的使用和安装、工具书和文献的查阅方法及实验记录与报告的撰写等知识;掌握熔点沸点的测定、蒸馏、结晶、萃取、色谱等基本操作技能。

Course description: Basic Organic Chemistry Experiment (1) is an independent basic compulsory course for the students majored in chemistry and applied chemistry. The course is designed to give students hands-on training of the basic techniques used in organic chemistry experiment and further understanding of the chemical theoretical knowledge. It will help students to develop their ability for analyzing and resolving problems, and to build themselves the scientific literacy with realistic and conscientious attitude. The course composed of five laboratory experiences of organic synthesis to study the basic method and technique for the preparation, separation, purification, analysis and identification of organic compound. In this course, students are required to understand the knowledge of laboratory safety, prevention and treatment of accident, the usage and assembly of apparatus and instrument and the critical review of reference book and literature. They should keep a lab notebook to summarize their laboratory findings, write down the discussions, and familiarize themselves with safety information sources. It also requires students to master the general technology of basic operation like determination of melting and boiling point, distillation, recrystallization, extraction, chromatography and sublimation, and so on.

编 码: CH04040**Code:**CH04040**课程名称:** 基础有机化学实验(2)**Course Title:**Basic Organic Chemistry Experiment(2)**课程类别:** 学类核心**Course category:**Major Survey Course**学 分:** 2**Credit(s):**2**开课单位:** 化学化工学院**Offering College/School:**College of Chemistry and Chemical Engineering

课程描述: 基础有机化学实验(2)是化学和应用化学专业学生的一门独立的基础必修课。本课程的目的和任务主要是训练学生从事有机化学实验的基本技能,加深学生对化学理论知识的理解,提高分析和解决问题的能力,培养实事求是、严格认真的科学素养。本课程共有 8 次实验,前 4 次为有机物的合成实验,学习制备、分离与鉴定有机物的方法和技术;后 4 次综合性实验进一步学习有机合成的方法和复杂操作。本课程要求学生了解安全知识、事故的预防与处理、常用仪器的使用和安装、工具书和文献的查阅方法及实验记录与报告的撰写等知识;掌握蒸馏、结晶、萃取、色谱、升华、减压蒸馏、分水器使用、气体吸收等的操作技能,熟悉一些重要的有机合成反应和方法。

Course description: Basic Organic Chemistry Experiment (2) is an independent basic compulsory course for the students majored in chemistry and applied chemistry. The course is designed to give students hands-on training of the basic techniques used in organic chemistry experiment and further understanding of the chemical theoretical knowledge. It also aims to help students to develop their ability for analyzing and resolving problems, and to build themselves the scientific literacy with realistic and conscientious attitude. The Organic Chemistry Experiment (2) composed of eight experiments, in which the first four laboratory experiences of organic synthesis will be put into the study of the basic method and technique for the preparation, separation, purification, analysis and identification of organic compound. The last four comprehensive organic chemistry experiments will lay students a good foundation for building themselves the comprehensive thinking and innovation abilities by studying some synthetic methods and complicated manipulations. Students must understand the knowledge of laboratory safety, prevention and treatment of accident, the usage and assembly of apparatus and instrument, and the critical review of reference book and literature. They should keep a lab notebook to summarize their laboratory findings, write down the discussions, and familiarize themselves with safety information sources. This course also requires students to master the general technology of basic operation like distillation, recrystallization, extraction, chromatography and sublimation, as well as special experimental operation skills such as vacuum distillation, water separator, gas absorption. Furthermore, it is considered desirable to know some important methods and mechanisms of organic synthesis reactions well in detailed.

编 码: CH04042**Code:**CH04042**课程名称:** 分析化学(2)**Course Title:**Analytical Chemistry(2)**课程类别:** 学类核心**Course category:**Major Survey Course**学 分:** 2**Credit(s):**2**开课单位:** 化学化工学院**Offering College/School:**College of Chemistry and Chemical Engineering

课程描述: 分析化学(2)是一门应化专业的学类核心课,以无机化学为先导课程,为获取物质的化学信息,研究物质的组成、状态和结构提供仪器分析的原理和手段。本课程主要讲授光分析、电分析、色谱分析和波谱分析的基本原理、仪器构造、分析方法及实际应用,内容包括:紫外可见光谱法、原子发射光谱法、原子吸收光谱法、荧光、磷光、化学发光分析法、电位分析法、电解与库仑分析法、伏安与极谱法、色谱法、红外光谱法、核磁共振波谱法和质谱法。该课程的学习,要求学生系统掌握各类仪器分析方法的基本原理、仪器结构,熟悉各仪器分析方法的应用对象及分析过程。通过本课程的学习,树立严格的“量”的概念,培养科学思维,提高综合运用所学分析化学的知识解决实际问题的能力。

Course description: Analytical chemistry(2) is a professional core course for undergraduates majored in applied chemistry after the study of inorganic chemistry. This basic course provides instrumental principles and research methods for obtaining the chemical information including composition, state and structure of the matters. The principles and applications associated with modern optical, electrochemical, chromatographic and spectroscopic analysis will be presented, which includes the UV-visible spectrometry, atomic emission spectrometry, atomic absorption spectroscopy, fluorescence, phosphorescence and chemical luminescence analysis, potentiometric analysis methods, electrolysis and coulomb analysis methods, voltammetry and polarography, chromatography, infrared spectroscopy, nuclear magnetic resonance spectroscopy and mass spectrometry. Students are expected to master the basic principles of the instrumental analysis and the structure of the instruments, familiar with the application object and analysis process of the methods. Through the study of this course, the concept of strict "quantity" will be built. What's more, this course plays an important role in training students' scientific mind, improving the abilities of solving practical problems with the knowledge they have learned.

编 码: CH04043**Code:** CH04043**课程名称:** 基础分析化学实验**Course Title:** Basic Analytical Chemistry Experiment**课程类别:** 学类核心**Course category:** Major Survey Course**学 分:** 2**Credit(s):** 2**开课单位:** 化学化工学院**Offering College/School:** College of Chemistry and Chemical Engineering

课程描述: 基础分析化学实验(1)是化学、应用化学专业的专业核心课程,以无机化学、分析化学为先导课程。本课程主要包括酸碱滴定、配位滴定、氧化还原滴定、沉淀滴定实验、综合实验和设计实验共八个实验。学生需了解滴定过程中指示剂的变色原理与使用方法;理解四种滴定方法测定样品的原理,掌握称量、滴定的操作要领,以及滴定管、移液管等容量器皿的使用方法。通过本课程的学习使学生在接受严格的分析化学实验基本操作训练的基础上,在动手能力、实验技能、严谨的科学作风,实事求是的科学态度以及探索和开拓意识、独立分析与解决实际问题的能力、踏实有序而又讲求效率的工作作风等诸方面都能得到一定的培养和锻炼。

基础分析化学实验(2)是化学、应用化学专业的专业核心课程。以无机化学、分析化学和仪器分析为先导课程。本课程包括色谱、光谱、电化学共 8 个实验,学生需了解电化学工作站、气相色谱仪、高效液相色谱仪、紫外分光光度计、荧光分光光度计等仪器的构造,掌握各种仪器的操作方法以及样品测定的原理与方法。通过本课程的学习学生有机会接触到各种先进的大型仪器,对其构造以及使用方法有了进一步的掌握,对微量分析有了更深刻的认识,更好地提高了学生的实验操作技能。通过实验数据的记录处理,图表的绘制培养了学生严谨务实的科学作风、树立了严格的“量”的概念,在培养化学专业人才方面都起着举足轻重的作用。

Course description: Basic Analytical Chemistry Experiment (1) is a basic course for majors of chemistry and applied chemistry, taking inorganic chemistry and analytical chemistry as the leading courses. This course of a total of eight experiments mainly include acid base titration, coordination titration, redox titration, precipitation titration experiments, comprehensive experiment and designed experiment. Students need to understand the color changing principles and using methods of the indicator in the titration process, to catch on the principles of the four titration methods for the determination of samples, to master the operation method of weighing, titration, and using method of burets, pipette, etc.. On the basis of the rigorous training of basic experimental operation, this course tries to make students get a series of trainings and exercises in the manipulative ability, the experimental skills, rigorous scientific style, the scientific attitude of seeking truth from facts, exploration and pioneering consciousness and the ability to solve practical problems, independent analysis and solving practical problems, practical work style and other aspects.

Basic Analytical Chemistry Experiment (2) is a basic course for majors of chemistry and applied chemistry, taking inorganic chemistry, analytical chemistry and instrument analysis as the leading courses. The main content is instrumental analytical chemical experiments about chromatograph, spectrum and electrochemistry. Students need to understand the structure of the electrochemical workstation, gas chromatograph, high performance liquid chromatograph, ultraviolet spectrophotometer, fluorescence spectrophotometer and so on, to master the operation method of various instruments and the principle and method of sample determination. In the course of the study of instrumental analytical chemical experiments, students have opportunity to operate many advanced instruments, the structure and the use of the method can be further grasped, in the same time, they have a better understanding of the micro analysis, and their experimental operation skills can be further improved. By recording and processing the experimental data, drawing the chart, the students' rigorous and pragmatic scientific style can be cultivated, they will set up the concept "quantity" well. In a word, the analytical chemistry experiment plays an important role in the cultivation of chemistry specialty.

编 码: CH04043**Code:**CH04043**课程名称:** 物理化学 A(1)**Course Title:**Physical Chemistry A(1)**课程类别:** 学类核心**Course category:**Major Survey Course**学 分:** 3**Credit(s):**3**开课单位:** 化学化工学院**Offering College/School:**College of Chemistry and Chemical Engineering

课程描述: 物理化学 A(1)是化工专业的学类核心课程,以高等数学、普通物理、无机化学、有机化学为前导课程,为化学工程技术提供基础理论和研究方法。本课程主要包括热力学定律、简单混合物、相平衡和化学平衡。学生掌握热力学三大定律、状态函数和相关物理量的计算、简单混合物的研究方法、相图的绘制和分析,需要理解化学和物理过程方向和限度的研究方法,并能灵活运用这些基本知识分析和解决生活、学习以及工程技术中遇到的物理化学问题,加深对自然现象本质的认识。学生通过本课程的学习,学会物理化学的科学思维方法,获得采用物理化学思维解决科学技术问题的能力。

Course description: It is a compulsory central course for undergraduates majoring in Chemistry Engineering after Advanced Mathematics, General Physics, Inorganic Chemistry and Organic Chemistry, aiming at providing basic theories and research methods for chemical engineering. It includes laws of thermodynamics, simple mixtures, phase equilibrium and chemical equilibrium. Students need grasp the three laws of thermodynamics, calculation of state functions and other physical parameters, the research method of simple mixtures, the drawing and analysis of phase diagram, understand the research method of the direction and limitation of chemical and physical process, and are capable of applying these basic knowledge to analyze and solve problems related to physical chemistry in the daily life, study and the chemical engineering, deepening the understanding of natural phenomena. Through studying this subject, students will learn scientific thinking method, and have the ability to deal with scientific and technological problems related to physical chemistry.

编 码: CH04044**Code:**CH04044**课程名称:** 物理化学 A(2)**Course Title:**Physical Chemistry A(2)**课程类别:** 学类核心**Course category:**Major Survey Course**学 分:** 2**Credit(s):**2**开课单位:** 化学化工学院**Offering College/School:**College of Chemistry and Chemical Engineering

课程描述: 本课程是化工专业的学类核心课程,以高等数学、普通物理、无机化学、有机化学、物理化学 A(1)为前导课程,为化学工程技术提供基础理论和研究方法。本课程主要包括电化学、化学动力学和胶体与界面化学。学生需掌握电化学反应基本原理和相关计算、简单化学反应速率和活化能计算、胶体与界面化学基本理论,理解原电池和电解基本工作原理、温度和催化剂对反应速率的影响、催化反应动力学过程、界面与本体性质的差异、胶体的特性,并能灵活运用这些基本知识分析和解决生活、学习以及生产实践中遇到的物理化学问题,加深对自然现象本质的认识。学生通过本课程的学习,学会物理化学的科学思维方法,获得采用物理化学思维解决科学技术问题的能力。

Course description: It is a compulsory central course for undergraduates majoring in Chemistry Engineering after Advanced Mathematics, General Physics, Inorganic Chemistry, Organic Chemistry and Physical Chemistry A(1), aiming at providing basic theories and research methods for chemical engineering. It includes electrochemistry, chemical kinetics, and colloid and interface chemistry. Students need grasp the basic principle and related calculations of electrochemical reactions, the calculation of the reaction rate active energy of simple chemical reactions, and the basic theory of colloid and interface chemistry, understand the work principle of electric battery and electrolysis, the dependence of the reaction rate upon temperature and catalyst, the dynamical process of catalytic reaction, the difference of interface from the interior of material, and the characteristics of colloid, and are capable of applying these knowledge to analyze and solve problems related to physical chemistry in the daily life, study and chemical engineering, deepening the understanding of natural phenomena. Through studying this subject, students will learn scientific thinking method and have the ability to deal with scientific and technological problems related to physical chemistry.

编 码: CH04045**Code:**CH04045**课程名称:** 有机化学 A(1)**Course Title:**Organic Chemistry A(1)**课程类别:** 学类核心**Course category:**Major Survey Course**学 分:** 3**Credit(s):**3**开课单位:** 化学化工学院**Offering College/School:**College of Chemistry and Chemical Engineering

课程描述: 本课程是化工专业的学类核心课程,以无机化学为前导课程,通过系统学习各类有机化合物的结构和性质的关系及其相互转变的内在联系,使学生掌握有机化学的基础知识、基本理论,并了解该领域的新成果和发展动态,提高学生灵活运用、综合分析和解决问题的能力,为学习后续学类核心课、专业核心课奠定坚实的基础。有机化学 A(1)课程由理论课(46 学时)和讨论课(2 学时)二部分组成,主要讲述有机化学的基本概念、基础知识和基本理论等,主要教学内容包括:(1)有机化合物的分类和命名;(2)有机化合物的结构及分子中原子间的相互影响;(3)脂肪烃、脂环烃、芳烃及羰基化合物的物理性质及典型变化规律;(4)脂肪烃、脂环烃、芳烃及羰基化合物的重要化学反应及其规律。

Course description: Organic chemistry is a professional education course for students major in chemical engineering, whose preceding course is inorganic chemistry. By studying the relationship between structure and property, students will not only master the basic knowledge, fundamental theory of organic chemistry, but also get information about the new achievement and development of this field. At the same time, students will further develop their analyzing ability and problem-solving skill. All of these provide a firm foundation for the continued study of other professional education or specialized education courses. Organic chemistry A(1) includes two parts, namely, course (46h) and discussion course (2h). This course may introduce the basic concept of organic chemistry. The teaching content includes: (1) the classification of organic compounds and their nomenclature. (2) structure of organic compounds and interactions of the different atoms. (3) the physical properties of fatty hydrocarbons, alicyclic hydrocarbons, aromatic hydrocarbons and carbonyls. (4) the important chemical reactions of fatty hydrocarbons, alicyclic hydrocarbons, aromatic hydrocarbons and carbonyls.

编 码: CH04046**Code:**CH04046**课程名称:** 有机化学 A(2)**Course Title:**Organic Chemistry A(2)**课程类别:** 学类核心**Course category:**Major Survey Course**学 分:** 2**Credit(s):**2**开课单位:** 化学化工学院**Offering College/School:**College of Chemistry and Chemical Engineering

课程描述: 本课程是化工专业的学类核心课程,以无机化学为前导课程,通过系统学习各类有机化合物的结构和性质的关系及其相互转变的内在联系,使学生掌握有机化学的基础知识、基本理论,并了解该领域的新成果和发展动态,提高学生灵活运用、综合分析和解决问题的能力,为学习后续学类核心课、专业核心课奠定坚实的基础。本课程由理论课(30 学时)和讨论课(2 学时)二部分组成,本课程将涵盖反应、机理、合成方法、结构测定以及各种官能团的性质,包括二烯烃、芳烃、羰基化合物、羧酸及其衍生物、酚类、胺类。重点突出结构和活性之间的关系。一些相应的专题也会被介绍以使学生明确有机化学在生物学、医学以及化工方面的重要作用。

Course description: Organic chemistry A(2) is a professional education course for students major in chemical engineering, whose preceding course is inorganic chemistry. By studying the relationship between structure and property, students will not only master the basic knowledge, fundamental theory of organic chemistry, but also get information about the new achievement and development of this field. At the same time, students will further develop their analyzing ability and problem-solving skill. All of these provide a firm foundation for the continued study of other professional education or specialized education courses. Organic chemistry A(2) includes two parts, namely, course (30h) and discussion course (4h). This course may introduce the basic concept of organic chemistry. This course will cover the reactions, mechanisms, synthesis, structure determination and properties of various functional groups including dienes, arenes, carbonyls, carboxylic acid and their derivatives, phenols, amines. The relationships between structure and reactivity are emphasized. Special topics in organic chemistry are included to illustrate the role of organic chemistry in biological systems, medicine, and in the chemical industry.

编 码: CH04047**Code:**CH04047**课程名称:** 无机化学 B**Course Title:**Inorganic ChemistryB**课程类别:** 学类核心**Course category:**Major Survey Course**学 分:** 4**Credit(s):**4**开课单位:** 化学化工学院**Offering College/School:**College of Chemistry and Chemical Engineering

课程描述: 本课程是化工专业的专业核心课程,以高中化学为前导课程,为化工专业的相关理论和实验方面课程学习提供基础和指导。本课程主要包括化学反应的方向、速率和限度,酸碱反应和沉淀平衡,氧化还原反应与电化学,原子、分子结构与性质,配位化学和元素化学等内容,学生需了解元素化学的基本知识,理解物质结构的基础理论和化学反应的基本原理,掌握化学学科基本的宏观和微观基础理论,并能灵活运用基本化学原理解释物质的重要性质和变化规律及相关化学过程和现象。通过学习本课程,学生学会运用化学反应的基本原理和物质结构的基本理论对物质的重要性质和变化规律加以解释,获得进一步学习相关专业课程不可或缺的专业知识和理论基础,锻炼和提升分析和解决一般无机化学问题的能力。

Course description: Inorganic Chemistry B is one of the core courses for students majoring in Chemical Engineering, which provides a basis and direction for further learning in other related theoretical and experimental courses. High school chemistry is a prerequisite for this course. The contents of this course include: chemical thermodynamics, chemical kinetics, acids and bases, solubility equilibrium, redox reactions and electrochemistry, atomic and molecular structures and properties, coordination chemistry and element chemistry, etc. It is required to know the basic knowledge of element chemistry, understand the foundational theories of atomic and molecular structures, and principles of chemical reactions, comprehend the basic theories in the subject of chemistry which can explain the chemical reactions, properties and related processes. Through this lecture, the knowledge of using chemical principles and theories to explained substances' properties and varying patterns is gained, the foundation of further learning related courses in higher levels is built upon, and the ability to analyze and solve questions in inorganic chemistry is acquired.

编 码: CH04048**Code:**CH04048**课程名称:** 分析化学 B**Course Title:**Analytical Chemistry B**课程类别:** 学类核心**Course category:**Major Survey Course**学 分:** 3**Credit(s):**3**开课单位:** 化学化工学院**Offering College/School:**College of Chemistry and Chemical Engineering

课程描述: 分析化学 B 是化工专业的学类核心课程,以无机化学为先导课程,为获取物质的化学信息,研究物质的组成、状态和结构提供原理和手段。本课程主要讲授化学分析和仪器分析的基本概念、原理和方法,通过本课程的学习,系统地掌握酸碱滴定法、配位滴定法、氧化还原滴定法、沉淀滴定法和重量分析法的基本原理、特点及应用,掌握光化学分析、电化学分析及色谱分析的原理、仪器构造及定性定量分析方法。通过本课程的学习,初步具备选择分析方法、正确评价和表达分析结果的能力,树立严格的“量”的概念,培养综合运用所学知识分析和解决实际问题的能力。

Course description: Analytical chemistry B is a professional core course for undergraduates majored in chemical engineering after the study of inorganic chemistry. This basic course provides principles and research methods for obtaining the chemical information including composition, state and structure of the matters. This course covers the basic theory, principle and knowledge of classic chemical analysis and advanced instrumental analysis. Students are expected to master the basic theories, characteristics and applications of the acid-base titration, the complexing equilibrium and titration, the redox titration, and the gravity analysis, familiar with the methods and instruments of optical analysis, electrochemical analysis and chromatography analysis. Through the study of this course, students have the ability to choose appropriate analytical method, correct evaluation and expression of the analytical results, thereby building the concept of strict "quantity". What's more, the study of this course will enable them to cultivate scientific thinking methods and improve the abilities of analyzing and solving the practical problems.

编 码: CH04049**Code:**CH04049**课程名称:**基础无机化学实验 A**Course Title:**Basic Inorganic Chemistry Experiment A**课程类别:**学类核心**Course category:**Major Survey Course**学 分:** 1**Credit(s):**1**开课单位:** 化学化工学院**Offering College/School:**College of Chemistry and Chemical Engineering

课程描述: 本课程是化学工程与工艺专业的专业核心课程,以《无机化学》为前导课程。该课程有其自身特点,自成体系,以实验技能训练为主,与理论课相互独立开设,通过学习本课程加深对无机化学课程的基本理论和基础知识的理解。本课程主要包括基本操作实验、基本原理实验和综合设计实验三个部分的内容。学生需要进行课前预习,理解实验原理,了解操作要点和注意事项等。通过学习本课程,学生学会规范的基本操作,掌握基本的实验技能,逐步学会准确地观察和分析化学反应现象以及处理数据的方法,提高分析问题和解决问题的能力,为后续的课程、科学研究和今后参加实际工作打下良好的化学基础。

Course description: Basic Inorganic Chemistry Experiment A is a core course for the students that major in chemical engineering. The "inorganic chemistry" is the leading courses. It is one of independent course in order to improve the experiment skill of the students and is not attached to any theory courses, through the study of this course students can deepen the understanding of the basic theory and basic knowledge of inorganic chemistry course. This course is divided into three parts, fundamental operation experiments, fundamental principles experiments and comprehensive design experiments. Students need to preview before class, understand the principle of experiment, understand the operation points and precautions. Through the study of this course, students learn to regulate the basic operation, master basic experimental skills, and gradually learn to accurately observe and analyze the phenomenon of chemical reaction and processing data, improve the ability to analyze and solve problems. Finally, inorganic chemistry experiment helps the students to build the solid foundation for the follow-up courses, scientific research and the future to participate in the actual work.

编 码: CH04050**Code:**CH04050**课程名称:**基础有机化学实验 A**Course Title:**Basic Organic Chemistry Experiment A**课程类别:**学类核心**Course category:**Major Survey Course**学 分:** 2**Credit(s):**2**开课单位:** 化学化工学院**Offering College/School:**College of Chemistry and Chemical Engineering

课程描述: 基础有机化学实验 A 是化工专业学生的一门独立的基础必修课, 是有机化学的重要组成部分。本课程的目的和任务主要是训练学生从事有机化学实验的基本技能, 加深学生对化学理论知识的理解, 提高其分析和解决问题的能力, 培养其实事求是、严格认真的科学素养。本课程共有 9 个有机化合物的合成实验, 学习制备、分离提纯及分析与鉴定有机化合物的方法和技术。本课程要求学生了解实验室安全知识、事故的预防与处理、常用仪器与装置的使用和安装、工具书和文献的查阅方法及实验记录与报告的撰写等知识; 掌握熔沸点的测定、蒸馏、重结晶、萃取、色谱及升华等常用基础操作技术, 学会减压蒸馏、分水器的使用、气体的吸收等实验操作技能; 此外, 熟悉一些重要的有机合成反应和方法。

Course description: As an important part of organic chemistry, Basic Organic Chemistry Experiment A is an independent basic compulsory course for the students majored in chemical engineering. The course is designed to give students hands-on training of the basic techniques used in organic chemistry experiment and further understanding of the chemical theoretical knowledge. It also aims to help students to develop their ability for analyzing and resolving problems, and to build themselves the scientific literacy with realistic and conscientious attitude. The Organic Chemistry Experiment course composed of nine experiments of organic synthesis in which students can study the basic methods and techniques used in preparation, separation, purification, analysis and identification of organic compound. Students must understand the knowledge of laboratory safety, prevention and treatment of accident, the usage and assembly of apparatus and instrument, and the critical review of reference book and literature. They should keep a lab notebook to summarize their laboratory findings, write down the discussions, and familiarize themselves with safety information sources. This course also requires students to master the general technology of basic operation like determination of melting and boiling point, distillation, recrystallization, extraction, chromatography and sublimation, as well as special experimental operation skills such as vacuum distillation, water separator, gas absorption. Furthermore, it is considered desirable to know some important methods and mechanisms of organic synthesis reactions well in detailed.

编 码: CH04051**Code:**CH04051**课程名称:** 基础物理化学实验 A(1)**Course Title:**Physical Chemistry Experiment A(1)**课程类别:** 学类核心**Course category:**Major Survey Course**学 分:** 1**Credit(s):**1**开课单位:** 化学化工学院**Offering College/School:**College of Chemistry and Chemical Engineering

课程描述: 基础物理化学实验 A(1)是研究物质的物理性质与其化学反应间关系的一门实验科学。这是一门为化学工程与工艺专业学生开设的专业基础课程。作为一门独立的课程，它是继无机化学与分析化学和物理化学等前修课程之后的一门综合基础化学实验课，它综合了化学领域中各分支所需的研究工具和方法。本课程主要包括热力学、动力学、电化学和胶体界面化学等方面的实验内容，学习该课程不仅有助于对理论知识的认识和理解，而且会使学生的化学实验技能和相互协作能力得到进一步的培养和提高。学生通过测量和记录大量的实验数据，观察实验现象，转换和处理大量数据，绘制很多图表，讨论思考题等，进一步加深他们对理论知识的理解，从而培养学生实事求是的科学态度，严谨细致的工作作风，熟练正确的实验技能，分析问题和解决问题的能力等，为今后从事科研工作奠定良好的基础。

Course description: Physical Chemistry Experiment A(1) is an Experimental Science which studies the physical properties of materials and inter-relationship between these properties and chemical reactions. This is a professional core course for majors of chemical engineering and technology. As a stand-alone course, it is a consolidated basis Chemistry Experiments following some pre-requisites such as Inorganic Chemistry, Analytical Chemistry and Physical Chemistry. It combines research tools and methods which are needed in the various branches of the chemical field. It includes chemical thermodynamics, chemical dynamics, electrochemistry, and colloid and interface chemistry. It helps students master basic methods and skills of Physic Chemistry Experiment, record experimental data and phenomena correctly, form their ability of correctly processing experimental data and analytical results, enhance the understanding of basic theories and concepts, master the basic principles and methods of physical chemistry and scientific research, improve their ability of flexibly using physical chemistry principles to solve chemical problems. The task of this course is to achieve the above goals step by step through Physical Chemistry Experiment and form students' ability of taking up teaching and scientific research independently.

编 码: CH04052**Code:**CH04052**课程名称:** 基础物理化学实验 A(2)**Course Title:**Physical Chemistry Experiment A(2)**课程类别:** 学类核心**Course category:**Major Survey Course**学 分:** 1**Credit(s):**1**开课单位:** 化学化工学院**Offering College/School:**College of Chemistry and Chemical Engineering

课程描述: 基础物理化学实验 A(2)是研究物质的物理性质与其化学反应间关系的一门实验科学。这是一门为化学工程与工艺专业学生开设的专业基础课程。作为一门独立的课程，它是继无机化学与分析化学和物理化学等前修课程之后的一门综合基础化学实验课，它综合了化学领域中各分支所需的研究工具和方法。本课程主要包括热力学、动力学、电化学和胶体界面化学等方面的实验内容，学习该课程不仅有助于对理论知识的认识和理解，而且会使学生的化学实验技能和相互协作能力得到进一步的培养和提高。学生通过测量和记录大量的实验数据，观察实验现象，转换和处理大量数据，绘制很多图表，讨论思考题等，进一步加深他们对理论知识的理解，从而培养学生实事求是的科学态度，严谨细致的工作作风，熟练正确的实验技能，分析问题和解决问题的能力等，为今后从事科研工作奠定良好的基础。

Course description: Physical Chemistry Experiment A(2) is an Experimental Science which studies the physical properties of materials and inter-relationship between these properties and chemical reactions. This is a professional core course for majors of chemical engineering and technology. As a stand-alone course, it is a consolidated basis Chemistry Experiments following some pre-requisites such as Inorganic Chemistry, Analytical Chemistry and Physical Chemistry. It combines research tools and methods which are needed in the various branches of the chemical field. It includes chemical thermodynamics, chemical dynamics, electrochemistry, and colloid and interface chemistry. It helps students master basic methods and skills of Physic Chemistry Experiment, record experimental data and phenomena correctly, form their ability of correctly processing experimental data and analytical results, enhance the understanding of basic theories and concepts, master the basic principles and methods of physical chemistry and scientific research, improve their ability of flexibly using physical chemistry principles to solve chemical problems. The task of this course is to achieve the above goals step by step through Physical Chemistry Experiment and form students' ability of taking up teaching and scientific research independently.

编 码: CH04053**Code:**CH04053**课程名称:** 基础分析化学实验 A**Course Title:**Basic Analytical Chemistry Experiment A**课程类别:** 学类核心**Course category:**Major Survey Course**学 分:** 2**Credit(s):**2**开课单位:** 化学化工学院**Offering College/School:**College of Chemistry and Chemical Engineering

课程描述: 基础分析化学实验 A 是化学工艺专业的专业核心课程。以无机化学、分析化学、仪器分析为先导课程。本课程主要包括滴定实验、综合实验、设计实验、色谱、光谱、电化学实验共十六个实验。学生需了解滴定过程中指示剂的变色原理与使用方法, 了解电化学工作站、气相色谱仪、高效液相色谱仪、紫外分光光度计、荧光分光光度计等仪器的构造; 理解四种滴定方法测定样品的原理, 掌握称量、滴定的操作要领、以及滴定管、移液管等容量器皿的使用方法, 掌握各种仪器的操作方法以及样品测定的原理与方法。通过本课程的学习使学生在动手能力、实验技能、严谨的科学作风, 实事求是的科学态度以及探索和开拓意识、独立分析与解决实际问题的能力、踏实有序而又讲求效率的工作作风等诸方面都能得到一定的培养和锻炼。

Course description: Basic Analytical Chemistry Experiment A is a basic course for majors of applied chemistry, taking inorganic chemistry, analytical chemistry and instrument analysis as the leading courses. This course of a total of sixteen experiments mainly include acid base titration, coordination titration, redox titration, precipitation titration experiment, comprehensive experiment, designed experiment, and instrumental analytical chemical experiments about chromatograph, spectrum and electrochemistry. Students need to understand the color changing principles and using methods of the indicator in the titration process and the structure of the electrochemical workstation, gas chromatograph, high performance liquid chromatograph, ultraviolet spectrophotometer, fluorescence spectrophotometer and so on, to catch on the principles of the four titration methods for the determination of samples, and the operation method of weighing, titration, and using method of burets, pipette, etc., to master the operation method of various instruments and the principle and method of sample determination. On the basis of the rigorous training of basic experimental operation, this course tries to make students get a series of trainings and exercises in the manipulative ability, the experimental skills, rigorous scientific style, the scientific attitude of seeking truth from facts, exploration and pioneering consciousness and the ability to solve practical problems, independent analysis and solving practical problems, practical work style and other aspects.

编 码: CH04054**Code:**CH04054**课程名称:** 物理化学(1)**Course Title:**Physical Chemistry (1)**课程类别:** 学类核心**Course category:**Major Survey Course**学 分:** 3**Credit(s):**3**开课单位:** 化学化工学院**Offering College/School:**College of Chemistry and Chemical Engineering

课程描述: 本课程是化学和应化专业的专业核心课程,以高等数学、普通物理、无机化学、有机化学为前导课程,为化学科学和应用技术提供基础理论和研究方法。本课程主要包括热力学定律、简单混合物、相平衡和化学平衡。学生掌握热力学三大定律、状态函数和相关物理量的计算、简单混合物的研究方法、相图的绘制和分析,需要理解化学和物理过程方向和限度的研究方法,并能灵活运用这些基本知识分析和解决科学研究和生产实践中遇到的物理化学问题,加深对自然现象本质的认识。学生通过本课程的学习,学会物理化学的科学思维方法,获得采用物理化学思维解决科学技术问题的能力。

Course description: It is a compulsory central course for undergraduates majoring in Chemistry or Applied Chemistry after Advanced Mathematics, General Physics, Inorganic Chemistry and Organic Chemistry, aiming at providing basic theories and research methods for chemical science and applied technology. It includes laws of thermodynamics, simple mixtures, phase equilibrium and chemical equilibrium. Students need grasp the three laws of thermodynamics, calculation of state functions and other physical parameters, the research method of simple mixtures, the drawing and analysis of phase diagram, understand the research method of the direction and limitation of chemical and physical process, and are capable of applying these basic knowledge to analyze and solve problems related to physical chemistry in scientific research and industrial production, deepening the understanding of natural phenomena. Through studying this subject, students will learn scientific thinking method and have the ability to deal with scientific and technological problems related to physical chemistry.

编 码: CH04055**Code:**CH04055**课程名称:** 物理化学(2)**Course Title:**Physical Chemistry (2)**课程类别:** 学类核心**Course category:**Major Survey Course**学 分:** 3**Credit(s):**3**开课单位:** 化学化工学院**Offering College/School:**College of Chemistry and Chemical Engineering

课程描述: 本课程是应用化学专业的学类核心课程,以高等数学、普通物理、无机化学、有机化学、物理化学(1)为前导课程,为应用化学提供基础理论和研究方法。本课程主要包括电化学、化学动力学和胶体与界面化学。学生需电化学反应基本原理和相关计算、简单化学反应动力学规律、胶体与界面化学基本理论,理解原电池和电解基本工作原理、温度和催化剂对反应速率的影响、光化学反应的本质、界面与本体性质的差异、胶体的特性,并能灵活运用这些基本知识分析和解决科学研究和生产实践中遇到的物理化学问题,加深对自然现象本质的认识。学生通过本课程的学习,学会物理化学的科学思维方法,获得采用物理化学思维解决科学技术问题的能力。

Course description: It is a compulsory central course for undergraduates majoring in Applied Chemistry after Advanced Mathematics, General Physics, Inorganic Chemistry, Organic Chemistry and Physical Chemistry (1), aiming at providing basic theories and research methods for applied chemistry. It includes electrochemistry, chemical kinetics, and colloid and interface chemistry. Students need grasp the basic principle and related calculations of electrochemical reactions, the dynamical patterns of simple chemical reactions, and the basic theory of colloid and interface chemistry, understand the work principle of electric battery and electrolysis, the dependence of the reaction rate upon temperature and catalyst, the nature of photochemical reaction, the difference of interface from the interior of material, and the characteristics of colloid, and are capable of applying these knowledge to analyze and solve problems related to physical chemistry in scientific research and industrial production, deepening the understanding of natural phenomena. Through studying this subject, students will learn scientific thinking method and have the ability to deal with scientific and technological problems related to physical chemistry.

编 码: CH04056**Code:**CH04056**课程名称:** 物理化学(2)**Course Title:**Physical Chemistry (2)**课程类别:** 学类核心**Course category:**Major Survey Course**学 分:** 4**Credit(s):**4**开课单位:** 化学化工学院**Offering College/School:**College of Chemistry and Chemical Engineering

课程描述: 本课程是化学专业的学类核心课程,以高等数学、普通物理、无机化学、有机化学、物理化学(1)为前导课程,为化学科学研究提供基础理论和方法。本课程主要包括统计热力学、电化学、化学动力学和胶体与界面化学。学生需掌握统计热力学的计算状态函数的方法、电化学反应基本原理和相关计算、化学反应速率和活化能计算、反应速率理论、胶体与界面化学基本理论,理解原电池和电解基本工作原理、温度和催化剂对反应速率的影响、界面和胶体不同于本体材料的独特性质,并能灵活运用这些基本知识分析和解决生活、学习以及生产实践中遇到的物理化学问题,加深对自然现象本质的认识。学生通过本课程的学习,学会物理化学的科学思维方法,获得采用物理化学思维解决科学技术问题的能力。

Course description: It is a compulsory central course for undergraduates majoring in Chemistry after Advanced Mathematics, General Physics, Inorganic Chemistry, Organic Chemistry and Physical Chemistry A(1), aiming at providing basic theories and research methods for chemical science. It includes statistical thermodynamics, electrochemistry, chemical kinetics, and colloid and interface chemistry. Students need grasp the calculation of state functions by the method of statistical thermodynamics, the basic principle and related calculations of electrochemical reactions, the calculation of the reaction rate and active energy of chemical reactions, theories of reaction rate, and the basic theory of colloid and interface chemistry, understand the work principle of electric battery and electrolysis, the dependence of the reaction rate upon temperature and catalyst, and the unique features of interface and colloid different the bulk materials, and are capable of applying these knowledge to analyze and solve problems related to physical chemistry in the daily life, study and industrial production, deepening the understanding of natural phenomena. Through studying this subject, students will learn scientific thinking method and have the ability to deal with scientific and technological problems related to physical chemistry.

编 码: CH05006**Code:**CH05006**课程名称:** 高分子化学**Course Title:**polymer chemistry**课程类别:** 专业核心**Course category:**Required Core Course**学 分:** 3**Credit(s):**3**开课单位:** 化学化工学院**Offering College/School:**College of Chemistry and Chemical Engineering

课程描述: 本课程是化学专业的专业核心课程,以有机化学为前导课程,为涉及化学的交叉学科方面课程学习提供理论基础。本课程主要包括高分子化合物的基本概念、高分子化合物的合成反应原理、反应动力学、聚合方法和高分子化合物的进一步深化反应等内容,学生需了解高分子的基本概念,理解高分子化合物的合成反应原理,掌握常见高分子化合物合成方法,并能灵活运用高分子合成原理设计与制备一些新型功能高分子化合物等。通过学习本课程,学生学会高分子化合物合成的基本方法,获得材料结构与性能关系,锻炼和提升新型高分子化合物的分子设计能力等。高分子化学是研究高分子合成及反应规律的一门科学,是化学科学领域发展最为迅速,与其他科学领域交叉度最高的一个研究领域。

Course description: Polymer chemistry is one of core courses of chemistry specialty, and organic chemistry acts as its precursor course. This course provides theoretical basis for interdisciplines which are involved in chemistry. This course mainly includes the basic concepts of polymers and polymer synthesis reaction mechanism, reaction kinetics, polymerization methods and polymer reactions. Students need to understand the basic concepts of polymer, comprehend the synthesis principle of polymers, grasp the synthesis methods of common polymers, and flexibly design as well as prepare some new functional polymers. By learning this course, students learn the basic methods of polymer synthesis, get the relationship between structure and performance of materials, and promote the ability of molecular design of new polymers. Polymer chemistry is a science that studies law of polymer synthesis and reaction, and is one of the fastest-growing and highly interdisciplinary fields.

编 码: CH05009**Code:**CH05009**课程名称:** 化学反应工程**Course Title:**Chemical Reaction Engineering**课程类别:** 专业核心**Course category:**Required Core Course**学 分:** 3**Credit(s):**3**开课单位:** 化学化工学院**Offering College/School:**College of Chemistry and Chemical Engineering

课程描述: 本课程是化工专业的专业核心课,以化工原理,化工制图,化工设备和物理化学为前导课程,为化工工艺,传递过程,化工过程分析与合成等专业核心课和选修课的学习提供了重要的学习基础,具有多学科交叉的特点,涉及化学,化工工艺,传递过程,工程控制等领域。化学反应工程主要包括均相反应动力学,均相反应过程,非理想流动,催化动力学,固定床反应器,流化床反应器等内容,并结合了大量化工应用实例和习题,以帮助学生课程内容更好的理解和应用。学生需了解实际反应器中的化学反应过程,理解流体流动对化学反应过程的影响,掌握并能熟练应用公式和数学建模来处理实际反应器中的化学反应过程。通过学习本课程,学生学会化学反应工程学的基本概念、基本理论和基本操作技能,获得分析和解决化学工程问题的能力,锻炼和提升对化工过程的实际问题处理水平。

Course description: This is a professional core course for majors of chemical engineering and technology. This course, which is based on Principle of Chemical Engineering, Chemical Engineering Equipment, Chemical Engineering Drawing and Physical Chemistry, can provide very important basis of studies of other professional core courses such as Chemical Processes, Transport Phenomena, The analysis and combination of Chemical Engineering. This course is multidisciplinary subjects consisting of various fields, such as chemistry, reaction engineering, chemical engineering, transport process, engineering controls, etc. The main contents of this course are reaction kinetics and reactor analysis and design, including homogeneous reaction kinetics, homogeneous reaction process, non-ideal flow, catalytic reaction kinetics and reactor analysis and design, as well as combination of exercises and application example in Chemical Engineering, in order to help students better understanding the contents. Students should know the chemical reaction processes in real reactors, understand the effects of fluid flows to the chemical reaction processes, and use equations and mathematic modeling to solve the real problems of chemical reaction processes in different reactors. Through the studies of this course, the students will learn the basic concepts, principles and controlling process of chemical engineering, obtain the ability of analysis and address the problems of chemical reaction engineering, practice and develop the ability of solving the real problems in chemical reaction engineering.

编 码: CH05018**Code:**CH05018**课程名称:** 化学工程基础实验**Course Title:**Chemical Engineering Basic Experiment**课程类别:** 专业核心**Course category:**Required Core Course**学 分:** 1**Credit(s):**1**开课单位:** 化学化工学院**Offering College/School:**College of Chemistry and Chemical Engineering

课程描述: 这是一门为化学、应化专业学生开设的专业基础课程,是将化工过程原理与实践相结合的重要环节。通过该课程的教学使学生进一步巩固和加深对理论知识的理解,了解典型的化工操作设备的结构、性能和流程特点,掌握化工实验的基本技能及化工工艺参数流量、温度、压强等测量技术,学会对化工实验数据的分析、整理及关联,培养学生基本的工程概念和进行科学研究的初步能力。主要内容为各物理单元操作,具体包括流体流动综合实验、传热系数的测定实验、过滤实验、精馏实验、吸收实验、干燥实验等。通过本课程的训练,可以提升学生社会责任感和良好的工程职业道德。

Course description: This is a basic course for majors of Chemistry and Applied Chemistry. It is an important part of combining the theory of chemical process with the practice, aiming at the students to further consolidate and deepen the understanding of theoretical knowledge and the structures, properties and process characteristics of the typical operation equipments, to master the basic skills of experiments and the measurement techniques of the parameters such as flow rate, temperature and pressure. This course develops the students' ability to analyze, sort and relate the experimental data and fosters their basic engineering concept and the abilities of doing scientific research. The main contents of this course are the physical unit operations, including comprehensive experiment on fluid flow, coefficient of heat transfer, filter, distillation, absorption, drying, etc. With the training of this course, students' social sense of responsibility and good engineering professional ethics can be promoted.

编 码: CH05042**Code:**CH05042**课程名称:** 化学工程基础**Course Title:**Fundamentals of Chemical Engineering**课程类别:** 专业核心**Course category:**Required Core Course**学 分:** 4**Credit(s):**4**开课单位:** 化学化工学院**Offering College/School:**College of Chemistry and Chemical Engineering

课程描述: 本课程是化学专业的专业核心课程,以高等数学,大学物理,物理化学等为前导课程,为实现从理论到实践,从课堂到实际生产提供工程基础知识储备。本课程主要讲授包括化工原理课程的基础知识。通过该课程的学习,学生需了解化工过程开发的基本内容和方法,对化工生产的全过程形成总体认识;掌握流体流动,流体输送机械,沉降和过滤,传热,蒸馏,吸收,干燥等化工典型单元操作的基本概念、过程原理;初步具备化工相关过程和单元设备计算能力;强化化学专业学生的工程观念,培养学生应用工程基础理论分析和解决较简单的工程实际问题的能力。

Course description: This course is a core curriculum for major of Chemistry .it is necessary to study mathematics, physics, physical chemistry before as the leading courses,and basics reserves of engineering can be provided to achieve the purpose of from theory to practice and from the classroom to actual production . The course includes the basic knowledge of chemical principles. By studying the course, students need to understand the basic contents and methods of chemical process development, and the overall awareness of whole chemical production process can be required to form ;The students must grasp the basic concepts and Process principle of typical unit operations such as Fluid flow, Fluid transportation machinery, Sedimentation and filtration, Heat Transfer, Distillation, Absorption, drying,etc; Students are required to have elementary computing capability of related chemical processes and unit equipment; The engineering concept of Chemistry students should be strengthened, student's ability is to be cultivated, which can be used to analyze and solve the relatively simple engineering problems by application of engineering basic theories .

编 码: CH05043**Code:**CH05043**课程名称:** 结构化学**Course Title:**Structural Chemistry**课程类别:** 专业核心**Course category:**Required Core Course**学 分:** 3.5**Credit(s):**3.5**开课单位:** 化学化工学院**Offering College/School:**College of Chemistry and Chemical Engineering

课程描述: “结构化学”是化学专业和应用化学专业的专业核心课程，以高等数学、普通物理、物理化学为前导课程，为现代物理化学、高等无机化学、高等有机化学等课程学习提供化学理论基础。本课程主要包括量子力学基础、原子结构、分子结构与化学键理论、原子与分子光谱、分子对称性与群论基础、晶体化学等内容。学生需了解量子力学、量子化学处理方法与过程、研究原子与分子结构的新方法，理解微观粒子的运动规律与量子力学基本假设、原子核外电子运动规律、化学键理论、物质性质与其微观结构之间关系以及晶体结构等内容，掌握原子结构与分子结构的基本概念、化学键理论、研究物质微观结构的实验方法，学会运用结构化学的理论和方法去分析一些简单的分子结构和性质的问题，培养学生从微观角度分析化学反应和物质结构与性质的能力。

Course description: Structural chemistry is a specialized course for undergraduates of majors of chemistry and applied chemistry after the studying of higher mathematics, general physics and physical chemistry. This course provides a theoretical basis for studying of follow-up courses, such as modern physical chemistry, advanced inorganic chemistry, and advanced organic chemistry. The content of this course mainly includes basic principles of quantum mechanics, structure of atom, structure of molecule and theories of chemical bonding, atomic and molecular spectroscopy, symmetry of molecule and basic knowledge of group theory, and crystal chemistry. Through the teaching of structural chemistry, students need to know quantum mechanics, methods and process of quantum chemistry treatment, new methods of studying atom and molecule structure. Students should understand motion laws of microscopic particles and postulate of quantum mechanics, electron motion law of atom, and theories of chemical bonding, the relation between the properties and microstructure of matter, and basic knowledge of group theory and molecular point group, and basic knowledge of crystal structure. Students should grasp the basic concepts and theories of atom and molecule, theories of chemical bonding, and experimental methods of studying the structure of matter, and learn how to analyze the problems about structure and properties of some simple molecules using theories and methods of structural chemistry, and cultivate the ability to analyze chemical reaction and matter's structure and properties at the microscopic level.

编 码: CH05044**Code:**CH05044**课程名称:** 化学工程基础**Course Title:**Chemical Fundamental**课程类别:** 专业核心**Course category:**Required Core Course**学 分:** 4**Credit(s):**4**开课单位:** 化学化工学院**Offering College/School:**College of Chemistry and Chemical Engineering

课程描述: 本课程是应用化学专业的专业核心课程,以高等数学,大学物理,物理化学等为前导课程,为实现从理论到实践,从课堂到实际生产提供工程基础知识储备。本课程主要讲授包括化工原理课程的基础知识。通过该课程的学习,学生需了解化工过程开发的基本内容和方法,对化工生产的全过程形成总体认识;掌握流体流动,流体输送机械,沉降和过滤,传热,蒸馏,吸收,干燥等化工典型单元操作的基本概念、过程原理;具备化工相关过程和单元设备计算能力;强化应用化学专业学生的工程观念,培养学生应用工程基础理论分析和解决较简单的工程实际问题的能力。

Course description: This course is a core curriculum for major of applied Chemistry .it is necessary to study mathematics, physics, physical chemistry before as the leading courses, and basics reserves of engineering can be provided to achieve the purpose of from theory to practice and from the classroom to actual production. The course includes the basic knowledge of chemical principles. By studying the course, students need to understand the basic contents and methods of chemical process development, and the overall awareness of whole chemical production process can be required to form ;The students must grasp the basic concepts and Process principle of typical unit operations such as Fluid flow, Fluid transportation machinery, Sedimentation and filtration, Heat Transfer, Distillation, Absorption, drying,etc; Students are required to have computing capability of related chemical processes and unit equipment; The engineering concept of applied Chemistry students should be strengthened, and student's ability is to be cultivated, which can be used to analyze and solve the relatively simple engineering problems by application of engineering basic theories .

编 码: CH05046**Code:**CH05046**课程名称:** 材料物理化学**Course Title:**Physical Chemistry of Materials**课程类别:** 专业核心**Course category:**Required Core Course**学 分:** 2**Credit(s):**2**开课单位:** 化学化工学院**Offering College/School:**College of Chemistry and Chemical Engineering

课程描述: 《材料物理化学》是一门为应用化学专业开设的专业核心课，以高等数学、无机化学、物理化学为先导课，为进一步学习高等材料化学等材料类专业课打下基础。本课程主要包括：材料热力学，相律和相图热力学，相变热力学，以及材料动力学和相变动力学等。学生需了解整个材料物理化学的理论框架，理解材料物理化学理论的基本特点，掌握基本的材料热力学、相图热力学和相变热力学，并能灵活运用材料物理化学物理化学基本理论对各种材料体系特别是二元、三元体系的重要性质和变化规律加以解释。通过该课程的教学使学生能够运用材料物理化学的基本性质和基本理论，对材料科学中的一些共同性的物理化学现象进行分析和研究，提升在理论指导下研究材料性质的能力。

Course description: Physical Chemistry of Materials is a specialized education course for the students majoring in applied chemistry. It is following the courses of high mathematics, inorganic chemistry, physical chemistry, and establishes a theoretical foundation for the following specialized courses of material science, such as advance material chemistry. This course is mainly including: chemical thermodynamics of material, phase law and thermodynamics of phase diagram, thermodynamics of phase change, chemical kinetics of material, kinetics of phase change, and so on. Students is required to know the whole theoretical frame of physical chemistry of material, and comprehend the common properties of physical chemistry of material, and master the fundamental chemical thermodynamics of material, phase law and thermodynamics of phase diagram, thermodynamics of phase change, further to proficiently explain those important properties of various materials system, especially binary and ternary system, on the base of the fundamental theories of physical chemistry of material. The objective of this course is to make students develop the capability to analyze and solve common material problems basing on the fundamental theories, and further promote the students' abilities to solve the universal material problems on the base of theory.

编 码: CH05047**Code:**CH05047**课程名称:** 高分子化学与涂料**Course Title:**Polymer Chemistry & Coating Organic Coatings**课程类别:** 专业核心**Course category:**Required Core Course**学 分:** 4**Credit(s):**4**开课单位:** 化学化工学院**Offering College/School:**College of Chemistry and Chemical Engineering

课程描述: 本课程是应用化学专业的专业核心课。以无机化学、有机化学、物理化学和分析化学等四大化学为前导课程。主要包括高分子的基本概念, 高分子化合物的合成反应原理、反应动力学、聚合方法, 涂料树脂合成方法及其应用等内容, 学生需了解高分子及涂料工业发展的历史背景、重大事件和研究前沿, 掌握高分子化学基本概念, 合成高分子化合物的基本原理, 控制聚合反应速度和分子量的方法; 了解聚合物性能与单体结构的关系, 掌握涂料基本概念和组成, 涂料用树脂合成方法, 涂料用颜料、溶剂及助剂, 了解水性涂料等环保型涂料。本课程培养学生牢固地掌握高分子化学的基础知识及涂料应用。通过本课程的学习, 学会高分子化学的科学思维方法, 获得解决高分子化学和涂料应用方面问题的能力。

Course description: Polymer Chemistry and Organic Coatings is a compulsory core course for undergraduates of applied chemistry major after inorganic chemistry , organic chemistry, physical chemistry and analytic chemistry. The contents include basic concept of macromolecular compound, synthesis reaction principles, reaction kinetics, polymerization process and organic coatings application. It plays a role in the introduction of historical background, important events and research fronts about the field of polymer. Except to master the basic knowledge of polymer chemistry, students need to concentrate on basic concepts of polymer coating and composition、understand the relationship between polymer properties and monomer structure, master the basic concepts and composition of organic coatings, synthetic resin paint, pigment, solvent and additives for coatings, waterborne coatings and other environmental knowledge paint. The aim of this course is to train the students to firmly master the basic knowledge of polymer chemistry and the application of coatings and obtain the ability of the scientific thinking method of polymer chemistry and obtain the ability to solve the problem of polymer chemistry and organic coating .

编 码: CH05048**Code:**CH05048**课程名称:** 电化学动力学**Course Title:**Electrochemical Kinetics**课程类别:** 专业核心**Course category:**Required Core Course**学 分:** 3**Credit(s):**3**开课单位:** 化学化工学院**Offering College/School:**College of Chemistry and Chemical Engineering

课程描述: 本课程是应用化学专业的核心课程,以物理化学、数学为前导课程,为本专业后续课程如金属腐蚀及防护理论、化学电源、电镀与氧化工艺、电化学测量与腐蚀研究方法、电化学合成等诸多课程的学习奠定坚实的理论基础。本课程主要内容包括:电极/溶液界面的结构组成、液相传质过程的原理及动力学特征、界面电荷交换的原理及动力学规律以及界面转化步骤的动力学特征等。学生需要理解和掌握相关的电化学动力学基础知识。通过学习本课程,学生将学会如何运用电化学动力学原理去解释电化学反应,并理解和掌握具体的专门化知识,提高分析和解决相关实际问题的能力。

Course description: Electrochemical Kinetics is the core course for students majored in applied chemistry, students should have some background knowledge in physical chemistry and math before taking this course. Studying Electrochemical Kinetics will build solid theoretical foundation for learning the following courses: metals corrosion and protection, chemical power source, electroplating and oxidation processes, electrochemical measurements and corrosion research methods, electrochemical synthesis and so on. This core course content mainly contains composition and structure of electrode/solution interface, principle and kinetics characteristics of mass transfer process, principle and kinetics characteristics of interface charge exchange process, and the kinetics characteristics of interface transformation step. Students need to understand and master these electrochemical kinetics knowledge. Through the study of this course, students are expected to know how to explain electrochemical reactions by using these knowledge, to understand and master other relevant subject knowledge, and to improve the abilities of analyzing and solving practical problems.

编 码: CH05049**Code:**CH05049**课程名称:** 金属腐蚀及防理论**Course Title:** Metal Corrosion and Protection Theory**课程类别:** 专业核心**Course category:** Required Core Course**学 分:** 3**Credit(s):** 3**开课单位:** 化学化工学院**Offering College/School:** College of Chemistry and Chemical Engineering

课程描述: 金属腐蚀及其保护理论是为化学化工学院应用化学专业开设的专业基础课, 以电化学动力学为前导课, 为缓蚀剂与防锈技术、电镀原理与工艺等专业课提供理论基础。本课程主要内容包括金属腐蚀的热力学与动力学、金属钝化、析氢和吸氧腐蚀、局部腐蚀、环境腐蚀、腐蚀的影响因素、控制腐蚀方法的原理; 补充少量金属学知识如晶体结构、合金钢、不锈钢和有色金属知识。通过学习本课程, 要求理解并掌握金属腐蚀及其保护理论的基本知识, 能应用这些理论分析和解决金属腐蚀的问题。

Course description: Theory of Metal Corrosion and its Protection is a basic course for majors of applied chemistry. It takes the Electrochemical Kinetics as the leading course and provides theoretical basis for the professional course, such as Corrosion Inhibitor and Anti-corrosion technology, Electroplating Principle and Technology, etc. The main contents of this course include the thermodynamics and dynamics of metal corrosion, passivation of metals, the precipitation of hydrogen corrosion and the absorption of oxygen corrosion, localized corrosion, environment corrosion, the factors affecting corrosion, the methods and principles of corrosion control; Adding little metallurgy knowledge such as crystal structure of metals, alloy steel and stainless steel. Through this course, students are required to understand and master the basic knowledge of metal corrosion and its protection theory, moreover they also need the ability to analyze and solve the problems of metal corrosion by these theory.

编 码: CH05050**Code:**CH05050**课程名称:** 应化专业综合实验**Course Title:**Comprehensive Experiments of Applied Chemistry Profession**课程类别:** 专业核心**Course category:**Required Core Course**学 分:** 3**Credit(s):**3**开课单位:** 化学化工学院**Offering College/School:**College of Chemistry and Chemical Engineering

课程描述: 本课程是应用化学专业的专业核心课程,是继“电化学动力学”、“金属腐蚀理论及防护”、“高分子化学与应用”等专业核心理论课程后开设的一门专业综合实验课程,它综合了电化学、腐蚀领域及其分支所需的研究工具和方法,其目的在于加深学生对电化学理论、腐蚀防护原理及高分子化学的理解。本课程主要包括十六项专业实验。通过本课程学习,有助于提高学生对理论知识的理解,学会金属腐蚀测量方法,电化学测量方法及电镀、涂料和防锈实验方法,培养学生实事求是的科学态度,严谨细致的工作作风,熟练正确的实验技能,分析问题和解决问题的能力等,为今后从事科研工作奠定良好的基础。

Course description: Comprehensive experiments of applied chemistry is a special core course for majors of applied chemistry, aiming at the students' better mastery of the basic concepts and theories of those studied courses such as electrochemical kinetics, Corrosion theory and protection of metals and polymer chemistry and organic coatings. It combines research tools and methods which are needed in the various branches of the Electrochemical and corrosion field. The contents of this course include sixteen independent experiments. It helps students master the metal corrosion, electrochemical measuring, electroplating, organic coating and rust proof test method correctly, form their ability of correctly processing experimental data and analytical results, enhance the understanding of basic theories and concepts. The task of this course is to achieve the above goals step by step through Comprehensive experiments of applied chemistry and form students' ability of taking up teaching and scientific research independently.

编 码: CH05051**Code:**CH05051**课程名称:** 化工原理(1)**Course Title:**Principles of Chemical Engineering (1)**课程类别:** 专业核心**Course category:**Required Core Course**学 分:** 3**Credit(s):**3**开课单位:** 化学化工学院**Offering College/School:**College of Chemistry and Chemical Engineering

课程描述: 化工原理是化学工程与工艺专业的核心课程。它是化工基础课与专业课之间的桥梁课程。全课程由化工原理（1）和（2）两部分组成，分两学期开设。它以传递过程原理为主线，讨论化学工业中各单元操作的基本规律、典型设备的设计 and 操作方法。课程的关键是如何树立工程观点，掌握重要的计算和设计方法。化工原理（1）主要内容包括流体输送（流体输送机械、沉降、过滤）和热量传递（传热、蒸发）。主要目标是培养提高学生处理化工单元操作实际问题的能力。

Course description: The Principles of Chemical Engineering is one of the professional core courses for students major in Chemical Engineering and Technology. It is an important bridge between fundamental courses and major courses in chemical engineering. The total course includes principles of chemical engineering (1) and (2), which will be carried through two semesters. It takes the principles of transfer processes as the mainline, and discusses the fundamental principle of unit operations, the calculation and operating method of typical equipments used in chemical industries. The keypoints of this course are how to obtain engineering viewpoints, important calculations, and designing methods. The main contents of principles of chemical engineering (1) consist of two kinds of transfer processes: fluid flow processes (e.g. fluids transportation, filtration, sedimentation), and heat transfer processes (e.g. heat exchange, evaporation). What is more, the aim is to improve the students' ability of dealing with practical problem in chemical unit operations.

编 码: CH05052**Code:**CH05052**课程名称:** 化工原理(2)**Course Title:**Principles of Chemical Engineering (2)**课程类别:** 专业核心**Course category:**Required Core Course**学 分:** 3**Credit(s):**3**开课单位:** 化学化工学院**Offering College/School:**College of Chemistry and Chemical Engineering

课程描述: 化工原理是化学工程与工艺专业的核心课程。它是化工基础课与专业课之间的桥梁课程。全课程由化工原理（1）和（2）两部分组成，分两学期开设。它以传递过程原理为主线，讨论化学工业中各单元操作的基本规律、典型设备的设计 and 操作方法。课程的关键是如何树立工程观点，掌握重要的计算和设计方法。化工原理课程（2）主要内容包括蒸馏、吸收、萃取、干燥等质量传递单元操作。主要目标是培养提高学生处理化工质量传递单元操作实际问题的能力。

Course description: The Principles of Chemical Engineering is one of the professional core courses for students major in Chemical Engineering and Technology. It is an important bridge between fundamental courses and major courses in chemical engineering. The total course includes principles of chemical engineering A(1) and A(2), which will be carried through two semesters. It takes the principles of transfer processes as the mainline, and discusses the fundamental principle of unit operations, the calculation and operating method of typical equipments used in chemical industries. The keypoints of this course are how to obtain engineering viewpoints, important calculations, and designing methods. The main contents of principles of chemical engineering (2) consist of mass transfer processes, such as, distillation, absorption, extraction, drying , etc. What is more, the aim is to improve the students' ability of dealing with practical problem in chemical unit operations.

编 码: CH05053**Code:**CH05053**课程名称:** 化工热力学**Course Title:**Chemical Thermodynamics**课程类别:** 专业核心**Course category:**Required Core Course**学 分:** 3**Credit(s):**3**开课单位:** 化学化工学院**Offering College/School:**College of Chemistry and Chemical Engineering

课程描述: 本课程是化学工程与工艺专业的本科核心课程,以高等数学、物理化学为先导课程,为后续专业课的学习如分离工程、反应工程以及进行化工过程研究、开发与设计奠定必要的理论基础。本课程是一门专业理论课,涉及运用经典热力学原理分析解决化工过程中的能量有效利用和质量有效利用问题,课程内容包括:均相封闭系统、非均相封闭系统和敞开系统流体热力学性质的计算及应用;溶液的性质及运用溶液理论和状态方程计算各种流体的相平衡;利用热力学的原理和方法对化工过程进行可行性和能量的有效利用分析,为工艺过程的改进和提高能量利用率指出方向和方法。通过本课程的学习,培养学生运用经典热力学原理,结合反映系统特征的模型,分析和解决化工过程中有关能量转换、相变和化学变化的实际问题的能力,初步掌握化工过程设计与研究中获取物性数据,对化工过程进行有关计算的方法。本课程能有效提高学生的专业理论水平,培养分析解决实际问题的能力。

Course description: The core curriculum is compulsory for all undergraduates majored in Chemical Engineering and Technology. This course requires a foundational knowledge in 'Advanced Mathematics' and 'Physics Chemistry', and lays a solid foundation for their study of follow-up courses such as 'Chemical Separation Engineering', 'Chemical Reaction Engineering' and 'Chemical Engineering Design'. Chemical Engineering Thermodynamics is primarily concerned with the application of thermodynamics to phase equilibria and reaction equilibria in multicomponent systems. This course covers the applications of equations of state, solution thermodynamics, calculation of properties of pure substances, properties of mixtures, phase equilibria and chemical reaction equilibria, and applying the first and second laws in the analysis of chemical processes. This course aims at the students' mastery of the principles, concepts, and laws/postulates of classical thermodynamics and the development of their ability to analyze and solve practical problems about energy transformation, phase transition and chemical changes in chemical processes.

编 码: CH05054**Code:**CH05054**课程名称:** 化工设计**Course Title:**Chemical Engineering Design**课程类别:** 专业核心**Course category:**Required Core Course**学 分:** 3**Credit(s):**3**开课单位:** 化学化工学院**Offering College/School:**College of Chemistry and Chemical Engineering

课程描述: 本课程是化学工程与工艺专业的专业核心课程,以化工原理、化工反应工程、化工热力学、化工设备机械基础、化工仪表与自动化、化工分离工程为前导课程,为化工基础和综合课程设计、毕业设计方面课程学习提供必要基础。本课程主要包括化工厂设计的内容与程序、工艺流程设计、物料与热量衡算、设备工艺设计、车间与管道布置设计、非工艺专业等内容,学生需了解化工设计基本程序与规范,工艺流程设计以及车间设备与管道布置的原则和方法,非工艺专业设计,工程概算,技术经济评价方法,理解物料与热量衡算及设备选型与工艺计算的原理和方法,掌握化工专业图的绘制和阅读方法,并能灵活运用计算机软件进行工艺流程优化与化工专业图绘制等。通过学习本课程,学生学会运用所学知识,获得工程观点以及定量运算和设计能力,锻炼和提升创新能力与团队精神等。

Course description: This course is a core course of chemical engineering and technology specialty, with principles of chemical engineering, chemical reaction engineering, chemical engineering thermodynamics, chemical engineering, chemical instrumentation and automation machinery equipment, chemical separation engineering for leading course, basis of chemical and comprehensive curriculum design, graduation design courses provide the necessary foundation. This course mainly includes the content of the chemical plant design and application, process design, material and heat balance, equipment and process design, workshop and pipeline layout design, the content such as non majors, students need to learn basic procedures and specification of chemical design, process design and equipment of the plant and pipeline layout, the principle and method in the process engineering design, project budget, technical and economic evaluation methods, understand the principle and method of the material and heat balance , the selection of the equipment and the process calculation, to grasp the method of plotting and reading chemical professional figure, and flexible use of computer software to optimize technological process and chemical professional figure drawing, etc. By learning this course, students learn to apply knowledge, engineering point of view and quantitative computation and design ability, exercise and improve innovation ability and the team spirit and so on.

编 码: CH05055**Code:**CH05055**课程名称:** 化工工艺学**Course Title:**Chemical Engineering Technology**课程类别:** 专业核心**Course category:**Required Core Course**学 分:** 2**Credit(s):**2**开课单位:** 化学化工学院**Offering College/School:**College of Chemistry and Chemical Engineering

课程描述: “化工工艺学”是化学工程与工艺专业的专业核心课程，是化工类专业必修的专业技术课程。本课程以《化工原理》、《化工热力学》、《化学反应工程》、《化工分离工程》等为前导课程，并为《化工设计》、《毕业实习》、《毕业设计》等课程的学习提供理论基础。本课程以化工产品的典型生产工艺为体系，主要包括加氢过程、脱氢过程、氧化过程、烃类热裂解、烷基化反应和磺化过程等反应单元，学生必须了解化工生产的工艺原理、影响因素，理解确定工艺条件的依据和反应设备的结构特点，掌握化工生产的流程组织原则。通过学习本课程，使学生获得广博的化学工艺知识，培养理论联系实际的能力，为其将来从事化工过程的开发、设计、建设和科学管理打下牢固的化学工艺基础。

Course description: "Chemical Engineering Technology" is the core course of chemical engineering and technology specialty, and is a compulsory professional technology course for chemical engineering specialty. This course sets chemical engineering, chemical engineering thermodynamics, chemical reaction engineering, chemical separation engineering as the leading course, and provides theoretical basis to study the chemical engineering design, graduation practice, graduation design and other courses. This course is based on the typical production process of chemical products as system, mainly includes the reaction units of hydrogenation process, dehydrogenation process, oxidation process, thermal cracking of hydrocarbon, alkylation reaction and sulphonation process and so on. The students must have a good knowledge of the chemical production process principle, influence factors, understand the basis of the determined technological conditions and the structure characteristics of the reaction equipments, and master the organizational principle for the process of the chemical production. Through learning this course, students obtain broad knowledge of chemical technology, develop ability to integrate theory with practice, and lay a solid foundation of chemical technology for engaging in development, design, construction and scientific management of the process of chemical technology in the future.

编 码: CH05056**Code:**CH05056**课程名称:** 化工分离工程**Course Title:**Chemical Separation Engineering**课程类别:** 专业核心**Course category:**Required Core Course**学 分:** 2**Credit(s):**2**开课单位:** 化学化工学院**Offering College/School:**College of Chemistry and Chemical Engineering

课程描述: 《化工分离工程》是化学工程与工艺专业的核心课程，以《物理化学》、《化工原理》、《化工热力学》及《化工过程分析与合成》等课程为前导，是一门应用性和实践性较强的综合性课程，内容涉猎面广、跨度大、知识点多。本课程主要包括气液传质分离过程、液液传质分离过程、气固、液固传质分离过程及分离过程的节能优化与集成。学生需要理解掌握传统分离过程如精馏、吸收、萃取等分离过程的基本理论和基本内容，了解新型分离过程和新技术相关的内容。通过本课程的学习，为学生灵活应用分离工程的共性和特征进行分离过程的选择、特性分析和计算。通过本课程的学习，将工程和工艺相结合，着眼于培养学生的学习兴趣，让学生获得进行设计和分析能力的训练；提高学生理论联系实际解决问题的能力。

Course description: “Chemical Separation Engineering” is one of the most important professional courses of Chemical Engineering and Technology. As the forerunner courses of "Physical Chemistry", "Principles of Chemical Engineering", "Chemical Thermodynamics" and "Chemical Process Analysis and Synthesis", etc, it is characterized as an appliance and practice course, which covers a wide span and involves a large knowledge points. This course mainly includes the Gas-liquid mass transfer separation process, the liquid-liquid mass transfer separation process, solid-gas and solid-liquid mass transfer separation process and the energy saving optimization and integration of the separation process. Students should understand the basic theories and basic contents of traditional separation processes such as distillation, absorption, extraction separation processes, etc and do some understanding of some new technologies and new separation processes. After the learning of this course, students should learn to use the basic theories and methods of separation engineering to select and analysis separation technologies, then the calculation of the separation process. This course combines chemical engineering and technologies, focusing on cultivating the students' interests, Let the students get the training to carry on the design and analysis ability try to let the students obtain the ability to design and analysis and to improve the students' ability to apply theory to reality to solve the problem.

编 码: CH05057	Code: CH05057
课程名称: 化工设备机械基础	Course Title: Mechanical Fundamental of Chemical Engineering Equipment
课程类别: 专业核心	Course category: Required Core Course
学 分: 2	Credit(s): 2
开课单位: 化学化工学院	Offering College/School: College of Chemistry and Chemical Engineering

课程描述: 本课程是化学工程与工艺专业的本科核心课程,以高等数学、大学物理和工程制图为先导课程,为后续化工设计和毕业设计等课程和实践环节奠定基础。本课程是一门综合应用型课程,涉及多门学科知识,课程内容分为三大部分,包括工程力学、化工设备材料和化工容器设计。学生需掌握基本工程力学知识,熟悉化工设备常用金属材料的性能,掌握中低压化工容器的设计原理和设计基础知识,了解涉及压力容器设计、制造、材料使用和监察管理的有关标准和法规,并综合运用所学知识进行典型化工容器的设计。通过本课程的学习,学生获得化工设备相关机械知识,具备设计、使用和管理中、低压压力容器与化工设备的能力,培养学生的工程意识,提高分析解决工程问题的能力。

Course description: The core curriculum is compulsory for all undergraduates majored in Chemical Engineering and Technology. This course requires a foundational knowledge in 'Advanced Mathematics', 'University Physics' and 'Technical Drawing', and lays a solid foundation for their study of follow-up courses and practice trainings such as 'Chemical Engineering Design' and 'Graduation Design'. It is characterized as a comprehensive and applied course, covering the basic approaches and principles of design chemical equipment including Engineering Mechanics, Materials of Chemical Equipments and Mechanical Design of Typical Chemical Equipments. Students should understand the basic concepts and theories of design of process equipment, and have the abilities to design typical chemical equipment including selection of usual materials, calculation of structure strength and stiffness (rigidity) and structure design etc. After finishing the course, students should obtain the basic mechanical knowledge of chemical equipment and have the abilities of designing, employing and administering the medium or low pressure process vessels. This course also focuses on cultivating the students' engineering consciousness, and tries to improve the students' ability of analysis and solving engineering problems.

编 码: CH05058**Code:**CH05058**课程名称:** 化工过程分析与合成**Course Title:**Chemical Process Analysis and Synthesis**课程类别:** 专业核心**Course category:**Required Core Course**学 分:** 2**Credit(s):**2**开课单位:** 化学化工学院**Offering College/School:**College of Chemistry and Chemical Engineering

课程描述: 本课程是化学工程与工艺专业的专业核心课程,是一门以工程数学、物理化学、化工原理、化学反应工程、化工热力学、分离工程为前导课程,将工程与工艺有机地结合起来,并通过系统优化的观点研究分析化工过程系统中的规律的课程。本课程主要以典型的、现代的化学工艺过程作为研究对象、载体和实例,使学生学习并初步掌握有效地组织工艺流程,科学地确定系统的操作条件,以实现过程系统高效、平稳运行,达到所期望的技术、经济、环境和资源目标的方法,即系统工程的方法。同时从单纯突出系统工程方法论过渡到在介绍基本数学方法的基础上,强调注意运用系统工程思想和方法进行“案例”分析,突出实践性和综合性。通过学习本课程,学生学会 Aspen 的基本使用,基本具备应用系统工程的观点和方法来研究化工过程的开发、设计、最优操作和最优控制,应用化工过程模拟和优化方法开发新型化工过程和改造现有工厂技术的能力。

Course description: This course is a core course of chemical engineering and technology specialty. Engineering mathematics, physical chemistry, principles of chemical engineering, chemical reaction engineering, chemical engineering thermodynamics, separation engineering are the leading courses. It's a course studying the rules in chemical engineering process from the viewpoint of system optimization. This course mainly takes the typical, modern chemical process as the research as the research object, carrier and examples, to make the students learn and master the techniques such as organizing process effectively, scientifically determining the operating conditions of system. The aim is to realize the process system efficient and smooth running, to achieve the desired goal of technology, economy, environment and resources. This is the method of system engineering method. By learning this course, students should be familiar with how to use Aspen, and have the ability of studying the chemical process development, design, optimal operation and optimal control from the viewpoint of system engineering, and the ability of developing new chemical process and transform the existing plant technical by the method of chemical process simulation and optimization.

编 码: CH05059**Code:**CH05059**课程名称:** 化工安全与环保**Course Title:**Chemical Safety and Environmental Protection**课程类别:** 专业核心**Course category:**Required Core Course**学 分:** 2**Credit(s):**2**开课单位:** 化学化工学院**Offering College/School:**College of Chemistry and Chemical Engineering

课程描述: 本课程是为化学工程与工艺专业学生开设的专业核心课程。该课贯穿于化工生产的全过程,是从技术开发、工艺设计、生产操作、设备管理到应急事故处理都涉及到的综合性技术。主要内容包括:危险化学品安全、防火防爆防毒技术、压力容器安全、电气安全、化工装置安全检修、安全分析与评价及环境保护措施等。通过本课程的学习,使学生正确地认识化工生产安全的重要性,掌握化工安全技术的基本知识,具有分析、判断事故发生的原因,并能采取措施预防和控制化工生产事故的能力,为从事化工生产和基层安全生产管理打下坚实的基础。本课程可以培养学生较强的社会责任感和良好的工程职业道德,在从事化工相关过程中综合考虑经济、环境、法律、安全、健康等制约因素,提升自身的学习和发展潜力。

Course description: This is one of the professional core courses for students major in Chemical Engineering and Technology. The comprehensive skills in this course deal with the entire process of Chemical Engineering, including technology development, process design, production operation, equipment management, and emergency treatment. This course mainly include: hazardous chemicals; techniques preventing from fire, burst and toxin; safety of pressurized vessels and electric device; safe repair of facilities in chemical plants; safety analysis and evaluation; environmental precautions; and so on. Through the study of this course, students can: (i) have a more in-depth understanding on the importance of safety production in chemical process, (ii) grip the basic knowledge of safety technology for chemical engineering, and (iii) analyze and judge the reason of accidents timely and effectively in order to predict and control the production mistake in chemical plants. All these skills can make students adequate for the future jobs relate to the unit operation of chemical process and production management in charge of safety. This course can help students to cultivate strong social sense of responsibility and good engineering professional ethics, as well as the comprehensive consideration of economic, environmental, legal, safety, health and other factors when engaged in chemical engineering related process, to raise their learning and development potential.

编 码: CH05060**Code:**CH05060**课程名称:** 化工仪表与自动化**Course Title:**Chemical Meters and Automation**课程类别:** 专业核心**Course category:**Required Core Course**学 分:** 2**Credit(s):**2**开课单位:** 化学化工学院**Offering College/School:**College of Chemistry and Chemical Engineering

课程描述: 本课程是化学工程与工艺专业的专业核心课,以高等数学、普通物理学、电工电子学、化工原理为前导课程,为化工过程分析与合成、化工设计等课程的学习提供化工参数监测和自动化控制方面相关知识的支撑。本课程主要传授化工过程中压力、流量、物位和温度等化工工艺参数的监测和自动控制知识和技能,让学生了解各种工艺参数的波动变化特性,理解各种监测仪表的组成结构和工作原理,掌握监测仪表和自动化控制系统的选型、安装、投用以及常见故障判断的技能,并能灵活运用自动控制理论整定自动控制系统参数等。通过学习本课程,使学生学会化工仪表的选择、布置和使用,有效控制工艺参数在设定范围,保障化工过程的稳定运行,获得化工车间现场工艺操作和管理技能,锻炼和提升工程设计和运行能力。

Course description: This course is a professional core course of chemical engineering and technology specialty, with higher mathematics, physics, electrotechnics and chemical engineering principle as leading course, providing the support knowledge of chemical parameter monitoring and automatic control to study analysis and synthesis of chemical process, chemical engineering design and other courses. This course is mainly teaching the chemical process parameter monitoring and automatic control knowledge and skills such as pressure, flow, level and temperature in the chemical process, so as to let students know the fluctuation characteristics of various process parameters, understand the structure and work principle of various monitoring instruments, get hold of the skills of selection, installation, application and common failure predication about monitoring instruments and automated control system, and be able to flexible utilize automatic control theory to tuning the automated control system parameters. Through this course study, the students can understand chemical instrument selection, arrangement and application, effective process parameters controlling in the set range, guarantee the stable operation of chemical process, obtaining the operation and management skills in chemical workshop, and promotion their engineering design and operation ability.

编 码: CH05061**Code:**CH05061**课程名称:** 化工数学**Course Title:**Chemical Engineering Mathematics**课程类别:** 专业核心**Course category:**Required Core Course**学 分:** 2**Credit(s):**2**开课单位:** 化学化工学院**Offering College/School:**College of Chemistry and Chemical Engineering

课程描述: 本课程是化学工程与工艺专业的专业核心课程,以高等数学,线性代数,化工原理等为前导课程,为化学反应工程,化工热力学等专业核心课程的学习提供了数学基础。本课程介绍了化学、化工中常用的数值计算方法,并引入近代数学新进展在化工中的应用。主要包括非线性方程求根、线性代数方程组直接法和迭代法、插值逼近、拟合逼近、数值微积分、常微分和偏微分方程组数值解等内容,并结合了大量化工应用实例和习题,以帮助学生更好地理解和应用。学生需了解数值方法在化学工程专业中的应用,理解数值计算的原理,掌握并能灵活应用 Matlab 和 Excel 处理化学工程中的实际问题。通过学习本课程,学生学会数学和编程在化学工程实际问题中的使用方法,获得分析和解决化工过程中的数学问题处理能力,锻炼和提升对化工过程的数学建模能力,模型求解能力和编程能力等。

Course description: This is a professional core course for majors of chemical engineering and technology, which is based on Advanced Mathematics, Linear Algebra and Principles of Chemical Engineering, and it can provide the mathematic basis to the studies of other professional core courses such as Chemical Reaction Engineering, Thermodynamics of Chemical Engineering and so on. The Mathematics for Chemical Engineering mainly introduced the numerical methods normally used in Chemistry and Chemical Engineering, as well as the recent development of mathematics in Chemical Engineering application. This lecture mainly contains numerical solutions of non-linear and linear algebraic equations, iteration method, interpolation approximation, fitting approximation, numerical solutions of ordinary differential equations (ODE), partial differential equations (PDE) and integrations, as well as combination of exercises and application example in Chemical Engineering, in order to help students better understanding and applying the numerical methods in the real cases of chemical engineering. The students should know the application of numerical solutions in chemical engineering, understand the principles of numerical solutions, and use Matlab and Excel to deal with the real problems in chemical engineering. Through the studies of this course, the students will learn how to use mathematics and programming in chemical engineering, obtain the ability of analysis and address the mathematic problems in chemical engineering processes, practice and develop the ability of modeling, programming and solution method of models.

编 码: CH05062**Code:**CH05062**课程名称:** 化工导论**Course Title:**Introduction to Chemical Engineering**课程类别:** 专业核心**Course category:**Required Core Course**学 分:** 1**Credit(s):**1**开课单位:** 化学化工学院**Offering College/School:**College of Chemistry and Chemical Engineering

课程描述: 本课程是化学工程与工艺专业的专业核心课程, 为化工专业课程的前导课程, 为化工专业课程学习提供基础。本课程主要包括化工专业设置与课程的介绍、化工专业涉及的各方向研究现状及前景等内容, 学生需了解化工专业特色、培养目标及教学计划、课程设置、专业就业前景及深造机会等, 理解专业培养目标, 掌握化学工程、工业催化、高分子合成材料、能源化工、绿色化工领域的基本原理和最新研究进展等。通过学习本课程, 学生获得对化工专业的认识, 锻炼和提升化工专业文献检索与自学能力等。

Course description: This course is a core course in chemical engineering and technology, which provides the basis for the study of chemical engineering courses. This course mainly includes chemical professional setting and curriculum, the research status and prospects of the chemical industry. Students need to understand the chemical characteristics, training objectives and teaching plans, curriculum, professional employment prospects and further education opportunities, master chemical engineering, industrial catalysis, polymer synthetic materials, energy and chemical industry, green chemical industry and the latest research progress. Through the study of this course, the students get the knowledge of chemical engineering, exercise and enhance the chemical professional literature search and self-learning ability.

编 码: ES04001**Code:** ES04001**课程名称:** 无机化学 A**Course Title:** Inorganic Chemistry A**课程类别:** 学类核心**Course category:** Major Survey Course**学 分:** 4**Credit(s):** 4**开课单位:** 化学化工学院**Offering College/School:** College of Chemistry and Chemical Engineering

课程描述: 无机化学 A 是环境科学和环境工程等专业本科生的学类核心课。本课程以中学物理、化学知识为前导课程, 并为分析化学、有机化学、环境化学等后续专业课程的学习提供必要的基础知识准备。本课程是研究无机物质的组成、结构、性质和理论的科学, 研究对象涵盖了除有机化合物以外的所有元素及其化合物。通过本课程的教学, 使学生掌握原子结构和分子结构的基本知识, 掌握各族元素及其重要化合物的性质和变化规律。掌握化学价键理论、分子轨道理论, 初步了解晶体场理论, 并能熟练运用它们对物质的结构及性质做出解释。初步掌握实验的基本技能, 使学生在科学思维能力上得到初步的训练和培养。

Course description: Inorganic Chemistry is an important basic course for majors of Chemistry, Chemical Engineering, Environment Science and Engineering et al. The learning of theory (such as the value bands theory, hybrid orbital theory, metal band theory, molecular orbital theory, et al), enable student master the basic knowledge about atomic structures and molecular structures, grasp the properties and the variation of the elements and theirs important compounds, understand the relationship of between material structures and material properities, apply the theory knowledge to explain the relative phenomenon. The experimental teaching, at the same time, make the students combine the theory and experiments, consolidate the knowledge, train the ability of solving the problem. This course lay the essential foundation for student' further study of special course.

编 码: ES04002**Code:** ES04002**课程名称:** 有机化学 A**Course Title:** Organic Chemistry A**课程类别:** 学类核心**Course category:** Major Survey Course**学 分:** 4**Credit(s):** 4**开课单位:** 化学化工学院**Offering College/School:** College of Chemistry and Chemical Engineering

课程描述: 有机化学是研究有机化合物的来源、结构、性质、制备和应用, 以及相关理论和方法的科学。有机化学 A 是面向环境专业本科生的一门学类核心课程, 通过该课程的教学, 使学生熟练掌握有机化学的基本知识及理论, 为后续的相关专业课学习打好坚实的基础。本课程主要讲述有机化学的基本概念、基础知识和基本理论等, 主要教学内容包括: (1) 有机化合物的分类和命名; (2) 有机化合物的结构及分子中原子间的相互影响; (3) 有机化合物的物理性质及典型变化规律; (4) 有机化合物的重要化学反应及其规律。通过本课程的学习, 使学生掌握有机化学的基础知识、基本理论和基本实验技能, 熟悉物质结构与性质的关系等, 并能熟练运用它们对物质的结构及性质作出解释, 为进一步学习相关专业课程奠定不可或缺的基础。本课程以有机化学的理论为指导, 培养学生独立思考能力和创新能力, 使学生能够综合运用有机化学的原理和方法分析和解决实际问题。

Course description: Organic Chemistry is the study of the source, structure, properties and preparation methods and application of organic compounds. It is compulsory central course for majors of Environment Science and Engineering, aiming at the students' mastery of the basic concepts and theories of organic Chemistry, thus laying a solid foundation for their study of follow-up courses. This course introduces the basic concept of organic chemistry. The task of the course is to let students master the basic theory of organic chemistry and experiment skills and to understand the relationship of between organic compounds structures and organic compounds properities and apply the theory knowledge to explain the relative phenomenon. The teaching content includes: (1) the classification of organic compounds and their nomenclature; (2) structure of organic compounds and interactions of the different atoms; (3) the physical properties of organic compounds; (4) the important chemical reactions and their mechanisms. Through studying this subject, students will learn scientific thinking method and be developed to have the ability to analyze and solve the practical problems related to chemistry .

编 码: ES04005**Code:** ES04005**课程名称:** 物理化学 A**Course Title:** Physical chemistry A**课程类别:** 学类核心**Course category:** Major Survey Course**学 分:** 4**Credit(s):** 4**开课单位:** 化学化工学院**Offering College/School:** College of Chemistry and Chemical Engineering

课程描述: 本课程是环境科学与工程专业的学类核心课程,以高等数学、大学物理为前导课程,为环境工程技术提供基础理论和实验方法。本课程主要包括化学热力学定律、化学平衡、相平衡、电化学、化学动力学、胶体与界面化学。学生需要了解物理化学的基本知识与环境工程技术的关系,需要掌握过程方向进行的判据和限度、简单化学反应速率、电化学基本原理以及表面和胶体特性,需要理解化学和物理过程、化学能与电能之间的转化、表面和胶体与本体性质的差异。通过该课程的学习,学生学会物理化学的基本知识和理论,获得采用物理化学思维解决科学技术问题的能力。

Course description: It is a compulsory central course for undergraduates majoring in Environmental Science and Engineering after Advanced Mathematics, General Physics, Inorganic Chemistry, aiming at providing basic theories and research methods for environmental science and engineering. It includes laws of chemical thermodynamics, chemical equilibrium, phase equilibrium, electrochemistry, chemical kinetics, and colloid and interface chemistry. Students need learn the relation between the basic knowledge of physical chemistry and environmental science and engineering, grasp the criterion and the limitation of chemical and physical process direction, the reaction rate of simple chemical reaction, the basic principle of electrochemistry, and the properties of interface and colloid, and understand chemical and physical process, the conversion from chemical energy to electric energy, and the difference of surface and colloid from bulk material, Through studying this subject, students will learn scientific thinking method and have the ability to deal with scientific and technological problems related to physical chemistry.

编 码: ES05004**Code:** ES05004**课程名称:** 基础化学实验**Course Title:** Fundamental Chemistry Experiment**课程类别:** 学类核心**Course category:** Major Survey Course**学 分:** 2**Credit(s):** 2**开课单位:** 化学化工学院**Offering College/School:** College of Chemistry and Chemical Engineering

课程描述: 基础化学实验是环工、环科专业学生的一门独立的基础必修课。作为一门独立的课程,它是继无机化学与分析化学和物理化学等前修课程之后的一门综合基础化学实验课。本课程的目的和任务主要是训练学生从事化学实验的基本技能,加深学生对化学理论知识的理解,提高其分析和解决问题的能力,培养其实事求是、严格认真的科学素养。本课程要求学生了解实验室安全知识、事故的预防与处理、常用仪器与装置的使用和安装、工具书和文献的查阅方法及实验记录与报告的撰写等知识。授课过程中采用启发式教学,并要求学生进行课前预习。在实验操作前,结合课堂提问、示范操作或观看教学录像讲解实验原理、操作要点、注意事项等;实验过程中以督促、指导为主,对出现的问题及时指出并加以纠正;实验结束时可采取课堂讨论的形式对实验进行总结;实验课后要求学生独立完成实验报告,并对实验结果加以分析。学习该课程不仅有助于对理论知识的认识和理解,而且会使学生的化学实验技能和相互协作能力得到进一步的培养和提高。学生通过测量和记录大量的实验数据,观察实验现象,转换和处理大量数据,绘制很多图表,讨论思考题等,进一步加深他们对理论知识的理解,从而培养学生实事求是的科学态度,严谨细致的工作作风,熟练正确的实验技能,分析问题和解决问题的能力等,为今后从事科研工作奠定良好的基础。

Course description: Fundamental Chemistry Experiment, as an important part of chemistry, is an independent basic compulsory course for the students majored in Environmental engineering and Environmental science. As a stand-alone course, it is a consolidated basis Chemistry Experiments following some pre-requisites such as Inorganic Chemistry, Analytical Chemistry and Physical Chemistry. The course is designed to give students hands-on training of the basic techniques used in Basic Chemistry Experiment and further understanding of the chemical theoretical knowledge. It also aims to help students to develop their ability for analyzing and resolving problems, and to build themselves the scientific literacy with realistic and conscientious attitude. Students must understand the knowledge of laboratory safety, prevention and treatment of accident, the usage and assembly of apparatus and instrument, and the critical review of reference book and literature. They should keep a lab notebook to summarize their laboratory findings, write down the discussions, and familiarize themselves with safety information sources. The illuminating method is applied in Basic Chemistry Experiment teaching. And the students are expected to preview before every class. Classroom questioning, demonstrating, video instructing before each experiments will help students completely and accurately comprehend the mechanism of experiments, each step of experiments and the challenge attention of experiments. The teachers will summarize the problems which often appear in the experiment. The data analysis and results presented in the experimental report must be exclusively by the students. It helps students master basic methods and skills of Basic Chemistry Experiment, record experimental data and phenomena correctly, form their ability of correctly processing experimental data and analytical results, enhance the understanding of basic theories and concepts, master the basic principles and methods of chemistry and scientific research, improve their ability of flexibly using chemistry principles to solve chemical problems. The task of this course is to achieve the above goals step by step through Basic Chemistry Experiment and form students' ability of taking up teaching and scientific research independently.

编 码: GE02006**Code:**GE02006**课程名称:** 普通化学**Course Title:**General Chemistry**课程类别:** 学类核心**Course category:**Major Survey Course**学 分:** 2**Credit(s):**2**开课单位:** 化学化工学院**Offering College/School:**College of Chemistry and Chemical Engineering

课程描述: 普通化学是非化学理科专业的学类核心课程,以中学化学、物理为前导课程,为后续相关课程的学习提供化学理论基础。普通化学主要包括热化学,化学反应基本原理,水溶液化学,电化学,结构化学,高分子化合物,生物大分子基础和化学信息学等内容。通过本课程的学习,使学生掌握化学的基本概念和基础理论,了解化学知识在国民经济和各行各业中的重要用途,并使具备一定的化学素养,解决相关学科中以及生活中与化学相关的简单问题。

Course description: General Chemistry is a professional course for nonchemical students of science. Chemistry and Physics of high school are preliminary courses for the study. The course provides fundamental chemical theories for other relative courses. General Chemistry includes the contents as thermochemistry, fundamental theory on chemical reaction, solution chemistry, electrochemistry, structural chemistry, polymeric compound, biological macromolecule and chemical informatics. The course is aimed to cause students to learn basic concepts and theories on chemistry. Through the study of this course, students can gain information on promising applications of chemistry in national economy and series of vocations, preserve chemical attainments in a certain extent to solve simple chemical questions in scientific and life fields.

编 码: ME03001**Code:**ME03001**课程名称:** 工程化学**Course Title:**Engineering Chemistry**课程类别:** 学门核心**Course category:**Introductory Major Course**学 分:** 2**Credit(s):**2**开课单位:** 化学化工学院**Offering College/School:**College of Chemistry and Chemical Engineering

课程描述: 工程化学是工科专业的学类核心课程,以中学化学、物理为前导课程,为后续相关课程的学习提供化学理论基础。工程化学主要包括热化学,化学反应基本原理,水溶液化学,电化学,结构化学,高分子化合物,生物大分子基础和化学信息学等内容。通过本课程的学习,使学生掌握化学的基本概念和基础理论,了解化学知识在国民经济和各行各业中的重要用途,并使具备一定的化学素养,解决相关学科中以及生活中与化学相关的简单问题。

Course description: Engineering Chemistry is an department education course for the students of engineering. Chemistry and Physics of high school are preliminary courses for the study. The course provides fundamental chemical theories for other relative courses. Engineering Chemistry includes the contents as thermochemistry, fundamental theory on chemical reaction, solution chemistry, electrochemistry, structural chemistry, polymeric compound, biological macromolecule and chemical informatics. The course is aimed to cause students to learn basic concepts and theories on chemistry. Through the study of this course, students can gain information on promising applications of chemistry in national economy and series of vocations, preserve chemical attainments in a certain extent to solve simple chemical questions in scientific and life fields.

编 码: BA04039	Code:BA04039
课程名称: 概率论	Course Title:Probability Theory
课程类别: 学类核心	Course category:Major Survey Course
学 分: 4	Credit(s):4
开课单位: 数学与计量经济 学院	Offering College/School:College of Mathematics and Econometrics

课程描述: 概率论是从数量侧面研究随机现象的统计规律性的基础数学学科, 概率论的主要内容包括古典概型的计算、随机变量的分布及特征数字和极限定理等等。通过本课程的学习, 学生可以对随机现象中的数学规律有一定的认识。学生掌握该课程的基本概念、基本理论和基本运算技能, 能够为学好后续专业课程奠定必要的数学基础。

Course description: The Probability Theory aim to explore the regular rules underpinning the random events. It mainly explains the classic probability model, the distribution of random variables and the central limit theorem. Through Probability and statistic curriculum's study, the student may have certain understanding to the random phenomenon mathematics rule. The student grasps this curriculum the basic concept, the elementary theory and the fundamental operation skill, can learn the following special course to lay the essential mathematics foundation.

编 码: BA04040**Code:**BA04040**课程名称:** 数理统计**Course Title:**Mathematical Statistics**课程类别:** 学类核心**Course category:**Major Survey Course**学 分:** 4**Credit(s):**4**开课单位:** 数学与计量经济
学院**Offering College/School:**College of Mathematics and
Econometrics

课程描述: 数理统计乃数学中联系实际最直接最广泛的分支之一, 它介绍了点估计(矩法估计、极大似然估计)、参数假设检验、非参数假设检验、方差分析和多元回归分析、可靠性分析等基本知识和原理。通过本课程的学习, 使学生能全面理解、掌握数理统计的思想与方法, 掌握基本而常用的分析和计算方法, 并能运用数理统计的观点和方法来研究解决经济与管理中的实践问题。

Course description: The mathematical statistics is one of the most practised mathematical methods, and it introduces a number of estimation methods such as the method of moments (the moments estimation and the most likelihood estimation); non parameter and parameter tests, the analysis of variances; the multiple regression analysis, the reliable analysis and so like statistical knowledge.After this class, students are able to understand and manipulate methods and ideology which are demonstrated through the mathematical statistics, and finally to integrate their scientific knowledge into economic and managerial practices.

编 码: BA04043	Code: BA04043
课程名称: 常微分方程 A	Course Title: Ordinary Differential Equation A
课程类别: 学类核心	Course category: Major Survey Course
学 分: 3	Credit(s): 3
开课单位: 数学与计量经济 学院	Offering College/School: College of Mathematics and Econometrics

课程描述: 常微分方程 A 课程是我校理工类和经管类学科各专业一门必修的基础理论课程,是数学理论联系实际的重要渠道之一。它不仅能使学生了解到微分方程在其他自然科学学科中的应用,使学生进一步了解到数学的重要性和广泛的应用背景,提高应用能力,而且为学习后继课程和进一步获得数学知识奠定必要的数学基础。

常微分方程 A 主要包括:常微分方程的基本概念、一阶常微分方程的初等积分法、高阶常微分方程、一阶常微分方程组、解的存在唯一性定理与定性分析初步等。

常微分方程 A 课程在加强基本理论的同时,将通过各个教学环节逐步培养学生具有数学建模的能力、抽象概括的能力、逻辑推理的能力、空间想象的能力和自学的能力,并注重培养学生具有比较熟练的运算技能以及综合运用所学知识去分析问题和解决问题的能力。课程所使用的教材是钱祥征、黄立宏,《常微分方程》,湖南大学出版社,2007。

Course description: Ordinary Differential Equation A is an public basic compulsory course for the students majoring in science and engineering category or economy and management category at Hunan University, it is one of an important channel linking mathematic theory to reality. After completing this course, students should not only be able to know the application of Differential Equation in natural science, to understand the importance and widely application background of mathematics, improve application ability, but also establish necessary mathematical foundation for further study.

Ordinary Differential Equation A is one-semester's course including basic concepts of Ordinary Differential Equation, elementary integral method for first order Ordinary Differential Equation, high order Ordinary Differential Equation, first order system of Ordinary Differential Equations, existence and uniqueness theorem of solution as well as preliminary introduce of qualitative analysis, , etc.

In this course, the professor not only imparts basic theory, but also cultivates a student's ability to built mathematical model, draw abstraction and generalization, to make logical reasoning and to study independently. This course also focuses on enhancing a student's ability to achieve relatively proficient calculation and the ability to analyze and solve the problems with all knowledge in hand. The course material is Qian Xiangzhen, Huang Lihong, . Ordinary Differential Equation, Hunan University Press.

编 码: BA04043	Code: BA04043
课程名称: 常微分方程 A	Course Title: Ordinary Differential Equation A
课程类别: 学门核心	Course category: Introductory Major Course
学 分: 3	Credit(s): 3
开课单位: 数学与计量经济 学院	Offering College/School: College of Mathematics and Econometrics

课程描述: 常微分方程 A 课程是我校理工类和经管类学科各专业一门必修的基础理论课程,是数学理论联系实际的重要渠道之一。它不仅能使学生了解到微分方程在其他自然科学学科中的应用,使学生进一步了解到数学的重要性和广泛的应用背景,提高应用能力,而且为学习后继课程和进一步获得数学知识奠定必要的数学基础。

常微分方程 A 主要包括:常微分方程的基本概念、一阶常微分方程的初等积分法、高阶常微分方程、一阶常微分方程组、解的存在唯一性定理与定性分析初步等。

常微分方程 A 课程在加强基本理论的同时,将通过各个教学环节逐步培养学生具有数学建模的能力、抽象概括的能力、逻辑推理的能力、空间想象的能力和自学的能力,并注重培养学生具有比较熟练的运算技能以及综合运用所学知识去分析问题和解决问题的能力。课程所使用的教材是钱祥征、黄立宏,《常微分方程》,湖南大学出版社,2007。

Course description: Ordinary Differential Equation A is an public basic compulsory course for the students majoring in science and engineering category or economy and management category at Hunan University, it is one of an important channel linking mathematic theory to reality. After completing this course, students should not only be able to know the application of Differential Equation in natural science, to understand the importance and widely application background of mathematics, improve application ability, but also establish necessary mathematical foundation for further study.

Ordinary Differential Equation A is one-semester's course including basic concepts of Ordinary Differential Equation, elementary integral method for first order Ordinary Differential Equation, high order Ordinary Differential Equation, first order system of Ordinary Differential Equations, existence and uniqueness theorem of solution as well as preliminary introduce of qualitative analysis, , etc.

In this course, the professor not only imparts basic theory, but also cultivates a student's ability to built mathematical model, draw abstraction and generalization, to make logical reasoning and to study independently. This course also focuses on enhancing a student's ability to achieve relatively proficient calculation and the ability to analyze and solve the problems with all knowledge in hand. The course material is Qian Xiangzhen, Huang Lihong, . Ordinary Differential Equation, Hunan University Press.

编 码: EC04020

Code:EC04020

课程名称: 积分变换

Course Title: Integral Transformation

课程类别: 学类核心

Course category: Major Survey Course

学 分: 2

Credit(s): 2

开课单位: 数学与计量经济
学院

Offering College/School: College of Mathematics and
Econometrics

课程描述: 《积分变换》是理工类学科有关专业的一门基础理论课程。通过本课程的学习,使学生初步掌握积分变换的基本理论和方法,为学习有关后继课程奠定必要的数学基础。该课程主要内容包括傅立叶变换和拉普拉斯变换,先修课程为高等数学、复变函数等。

Course description: There is no contents at present.



编 码: EC04021

Code:EC04021

课程名称: 复变函数

Course Title:Complex Variables Functions

课程类别: 学类核心

Course category:Major Survey Course

学 分: 2

Credit(s):2

开课单位: 数学与计量经济
学院

Offering College/School:College of Mathematics and
Econometrics

课程描述: 本课程是我校理工科有关专业的基础必修课之一.课程主要讲述复变函数的基本概念、基本理论与基本方法. 其内容包括复数, 复变函数, 复积分, 复级数, 留数理论, 共形映射.

Course description: There is no contents at present.



编 码: EN04043**Code:**EN04043**课程名称:** 常微分方程 A**Course Title:** Ordinary Differential Equation A**课程类别:** 学类核心**Course category:** Major Survey Course**学 分:** 3**Credit(s):** 3**开课单位:** 数学与计量经济**Offering College/School:** College of Mathematics and
Econometrics

课程描述: 这是一门为全校经管类学生开设的专业基础课。主要内容为财务会计的基本方法和基本原理,具体包括:设置账户、复式记账、填制和审核凭证、登记账簿、成本计算、财产清查、编制会计报表等。

通过理论和实践教学,使学生能够掌握会计学的基本概念、基本理论和基本操作技能,为进一步学习相关后续专业课程(如财务会计、成本会计、财务管理、管理会计、审计等)打下必不可少的基础。

通过教学,培养学生分析问题、概括问题的能力,具有比较熟练的运用会计符号和语言反映经济业务的能力,对实务中企业披露的信息能够理解和利用。

Course description: This is a basic accounting course for finance, economics and management majors who are supposed to have no priority of Accounting-related knowledge. The course mainly includes basic methods and basic principles of financial accounting. To be specific, it mainly includes accounts, double-entry accounting, recording and checking the business documents and journals, transactions posted to ledgers, cost computing, property checking, and preparing of financial statements.

After teaching this course, it can help students master the basic concepts, basic theories and basic operation techniques of accounting, and build a foundation for the studying of subsequent major courses, such as financial accounting, cost accounting, financial management, managerial accounting.

Through the whole teaching process of fundamental accounting, it can develop students with the ability of analyzing and summarizing the problem of accounting theory and accounting practice, using accounting language to reflect the business transactions, and it can help students to understand and use the accounting information disclosed by the enterprises.

编 码: GE02038

Code:GE02038

课程名称: 高等数学 C

Course Title:Advanced Mathematics C

课程类别: 学门核心

Course category:Introductory Major Course

学 分: 3

Credit(s):3

开课单位: 数学与计量经济
学院

Offering College/School:College of Mathematics and
Econometrics

课程描述: 《高等数学 C》课程是为我校文科、艺术、建筑、设计等对数学内容要求较低的专业开设的一门基础课程, 它的教学内容主要是介绍一元函数的微积分。通过本课程的学习, 使学生获得微积分方面的初步知识, 同时使学生了解数学基本的思想方法和数学原理, 培养数学的素养和能力。

Course description: There is no contents at present.



编 码: GE03003**Code:**GE03003**课程名称:** 线性代数 A**Course Title:**Linear Algebra A**课程类别:** 学门核心**Course category:**Introductory Major Course**学 分:** 3**Credit(s):**3**开课单位:** 数学与计量经济
学院**Offering College/School:**College of Mathematics and
Econometrics

课程描述: 线性代数课程是我校理工类学科各专业一门必修的重要基础理论课程, 它使学生获得线性代数方面的基本概念、基本理论和基本方法, 并为学习后继课程和进一步获得数学知识奠定必要的数学基础。

线性代数课程安排一个学期讲授, 其主要内容包括: 行列式、矩阵、向量空间与线性变换、线性方程组、二次型等。

线性代数课程在传授知识的同时, 将通过各个教学环节逐步培养学生具有抽象概括问题的能力、逻辑推理能力、空间想象能力和自学能力, 并注重培养学生具有比较熟练的运算能力以及综合运用所学知识去分析问题和解决问题的能力。

湖南大学线性代数课程的教学团队是国家级教学团队, 课程目前所使用的教材是十二五国家级规划教材。

Course description: There is no contents at present.

编 码: GE03004	Code:GE03004
课程名称: 概率论与数理统计 A	Course Title:Probability and Statistics A
	Course category:Introductory Major Course
课程类别: 学门核心	Credit(s):3
学 分: 3	Offering College/School:College of Mathematics and
开课单位: 数学与计量经济 学院	Econometrics

课程描述: 概率论与数理统计课程是我校理工类学科各专业一门必修的重要基础理论课程,它能使 学生获得概率论和数理统计方面的基本概念、基本理论和基本方法,并为学习后继课程和进一步获得数学知识奠定必要的数学基础。

概率论与数理统计课程安排一个学期讲授,其主要内容包括:随机事件及其概率、随机变量及其概率分布、随机向量及其概率分布、数字特征、大数定律和中心极限定理、样本和抽样分布、参数估计、假设检验等。

概率论与数理统计课程在传授知识的同时,将通过各个教学环节逐步培养学生具有抽象概括问题的能力、逻辑推理能力和自学能力,并注重培养学生综合运用所学知识去分析问题和解决问题的能力。

湖南大学的概率论与数理统计课程是湖南省级精品课程,该课程的教学团队是国家级教学团队,课程目前所使用的教材是十二五国家级规划教材。

Course description: There is no contents at present.

编 码: GE03011**Code:**GE03011**课程名称:** 高等数学 B(1)**Course Title:**Advanced Mathematics B (1)**课程类别:** 学门核心**Course category:**Introductory Major Course**学 分:** 5**Credit(s):**5**开课单位:** 数学与计量经济**Offering College/School:**College of Mathematics and
Econometrics

课程描述: 高等数学课程是我校经管类学科各专业一门必修的重要基础理论课程, 它能使
学生获得微积分学方面的基本概念、基本理论和基本方法, 并为学习后继课程和进一步获得
数学知识奠定必要的数学基础。

高等数学课程安排上下两个学期讲授, 其主要内容包括: 函数的极限与连续、一元函数的
微分学及其应用、一元函数积分学及其应用、向量代数与空间解析几何、多元函数的微积
分学及其应用、无穷级数、常微分方程和常系数差分方程等。

高等数学课程在传授知识的同时, 将通过各个教学环节逐步培养学生具有抽象概括问题
的能力、逻辑推理能力、空间想象能力和自学能力, 并注重培养学生具有比较熟练的运算能
力以及综合运用所学知识去分析问题和解决问题的能力。

湖南大学的高等数学课程是国家级精品课程, 该课程的教学团队是国家级教学团队。

Course description: There is no contents at present.

编 码: GE03012	Code:GE03012
课程名称: 高等数学 B(2)	Course Title:Advanced Mathematics B (2)
课程类别: 学门核心	Course category:Introductory Major Course
学 分: 5	Credit(s):5
开课单位: 数学与计量经济 学院	Offering College/School:College of Mathematics and Econometrics

课程描述: 高等数学课程是我校经管类学科各专业一门必修的重要基础理论课程, 它能使
学生获得微积分学方面的基本概念、基本理论和基本方法, 并为学习后继课程和进一步获得
数学知识奠定必要的数学基础。

高等数学课程安排上下两个学期讲授, 其主要内容包括: 函数的极限与连续、一元函数的
微分学及其应用、一元函数积分学及其应用、向量代数与空间解析几何、多元函数的微积
分学及其应用、无穷级数、常微分方程和常系数差分方程等。

高等数学课程在传授知识的同时, 将通过各个教学环节逐步培养学生具有抽象概括问题
的能力、逻辑推理能力、空间想象能力和自学能力, 并注重培养学生具有比较熟练的运算能
力以及综合运用所学知识去分析问题和解决问题的能力。

湖南大学的高等数学课程是国家级精品课程, 该课程的教学团队是国家级教学团队。

Course description: There is no contents at present.

编 码: GE03013**Code:**GE03013**课程名称:** 线性代数 B**Course Title:**Linear Algebra B**课程类别:** 学门核心**Course category:**Introductory Major Course**学 分:** 3**Credit(s):**3**开课单位:** 数学与计量经济**Offering College/School:**College of Mathematics and
Econometrics
学院

课程描述: 线性代数课程是我校经管类学科各专业一门必修的重要基础理论课程, 它能使
学生获得线性代数方面的基本概念、基本理论和基本方法, 并为学习后继课程和进一步获得
数学知识奠定必要的数学基础。

线性代数课程安排一个学期讲授, 其主要内容包括: 行列式、矩阵、向量与向量空间、
线性方程组、特征值与特征向量、二次型等。

线性代数课程在传授知识的同时, 将通过各个教学环节逐步培养学生具有抽象概括问题
的能力、逻辑推理能力、空间想象能力和自学能力, 并注重培养学生具有比较熟练的运算能
力以及综合运用所学知识去分析问题和解决问题的能力。

湖南大学线性代数课程的教学团队是国家级教学团队。

Course description: There is no contents at present.

编 码: GE03014**Code:**GE03014**课程名称:** 概率论与数理统计 B**Course Title:**Probability and Statistics B**课程类别:** 学门核心**Course category:**Introductory Major Course**学 分:** 3**Credit(s):**3**开课单位:** 数学与计量经济**Offering College/School:**College of Mathematics and
Econometrics

课程描述: 概率论与数理统计课程是我校经管类学科各专业一门必修的重要基础理论课程,它能使 学生获得概率论和数理统计方面的基本概念、基本理论和基本方法,并为学习后继课程和进一步获得数学知识奠定必要的数学基础。

概率论与数理统计课程安排一个学期讲授,其主要内容包括:随机事件及其概率、随机变量及其概率分布、随机向量及其概率分布、数字特征、大数定律和中心极限定理、样本和抽样分布、参数估计、假设检验等。

概率论与数理统计课程在传授知识的同时,将通过各个教学环节逐步培养学生具有抽象概括问题的能力、逻辑推理能力和自学能力,并注重培养学生综合运用所学知识去分析问题和解决问题的能力。

湖南大学的概率论与数理统计课程是湖南省级精品课程,该课程的教学团队是国家级教学团队。

Course description: There is no contents at present.

编 码: GE03025	Code:GE03025
课程名称: 高等数学 A(1)	Course Title:Advanced Mathematics A(1)
课程类别: 学门核心	Course category:Introductory Major Course
学 分: 5	Credit(s):5
开课单位: 数学与计量经济 学院	Offering College/School:College of Mathematics and Econometrics

课程描述: 高等数学课程是我校理工类学科各专业一门必修的重要基础理论课程, 它能使
学生获得微积分学方面的基本概念、基本理论和基本方法, 并为学习后继课程和进一步获得
数学知识奠定必要的数学基础。

高等数学课程安排上下两个学期讲授, 其主要内容包括: 函数的极限与连续、导数与微
分、微分中值定理与导数的应用、不定积分、定积分及其应用、向量代数与空间解析几何、
多元函数的微分法、重积分、曲线积分与曲面积分、无穷级数、常微分方程等。

高等数学课程在传授知识的同时, 将通过各个教学环节逐步培养学生具有抽象概括问题的能
力、逻辑推理能力、空间想象能力和自学能力, 并注重培养学生具有比较熟练的运算能力以
及综合运用所学知识去分析问题和解决问题的能力。

湖南大学的高等数学课程是国家级精品课程, 该课程的教学团队是国家级教学团队, 课
程目前所使用的教材是十二五国家级规划教材。

Course description: There is no contents at present.

编 码: GE03025(26)	Code: GE03025(26)
课程名称: 高等数学 A	Course Title: Advanced Mathematics A
课程类别: 学门核心	Course category: Introductory Major Course
学 分: 10	Credit(s): 10
开课单位: 数学与计量经济 学院	Offering College/School: College of Mathematics and Econometrics

课程描述: 高等数学课程是我校理工类学科各专业一门必修的重要基础理论课程, 它能使
学生获得微积分学方面的基本概念、基本理论和基本方法, 并为学习后继课程和进一步获得
数学知识奠定必要的数学基础。

高等数学课程安排上下两个学期讲授, 其主要内容包括: 函数的极限与连续、导数与微
分、微分中值定理与导数的应用、不定积分、定积分及其应用、向量代数与空间解析几何、
多元函数的微分法、重积分、曲线积分与曲面积分、无穷级数、常微分方程等。

高等数学课程在传授知识的同时, 将通过各个教学环节逐步培养学生具有抽象概括问题
的能力、逻辑推理能力、空间想象能力和自学能力, 并注重培养学生具有比较熟练的运算能
力以及综合运用所学知识去分析问题和解决问题的能力。

湖南大学的高等数学课程是国家级精品课程, 该课程的教学团队是国家级教学团队, 课
程目前所使用的教材是十二五国家级规划教材。

Course description: There is no contents at present.

编 码: GE03026	Code:GE03026
课程名称: 高等数学 A(2)	Course Title:Advanced Mathematics A (2)
课程类别: 学门核心	Course category:Introductory Major Course
学 分: 5	Credit(s):5
开课单位: 数学与计量经济 学院	Offering College/School:College of Mathematics and Econometrics

课程描述: 高等数学课程是我校理工类学科各专业一门必修的重要基础理论课程, 它能使
学生获得微积分学方面的基本概念、基本理论和基本方法, 并为学习后继课程和进一步获得
数学知识奠定必要的数学基础。

高等数学课程安排上下两个学期讲授, 其主要内容包括: 函数的极限与连续、导数与微
分、微分中值定理与导数的应用、不定积分、定积分及其应用、向量代数与空间解析几何、
多元函数的微分法、重积分、曲线积分与曲面积分、无穷级数、常微分方程等。

高等数学课程在传授知识的同时, 将通过各个教学环节逐步培养学生具有抽象概括问题的能
力、逻辑推理能力、空间想象能力和自学能力, 并注重培养学生具有比较熟练的运算能力以
及综合运用所学知识去分析问题和解决问题的能力。

湖南大学的高等数学课程是国家级精品课程, 该课程的教学团队是国家级教学团队, 课
程目前所使用的教材是十二五国家级规划教材。

Course description: There is no contents at present.

编 码: GE03027	Code:GE03027
课程名称: 高等数学 B(1)	Course Title:Advanced Mathematics B (1)
课程类别: 学门核心	Course category:Introductory Major Course
学 分: 5	Credit(s):5
开课单位: 数学与计量经济 学院	Offering College/School:College of Mathematics and Econometrics

课程描述: 高等数学课程是我校经管类学科各专业一门必修的重要基础理论课程, 它能使
学生获得微积分学方面的基本概念、基本理论和基本方法, 并为学习后继课程和进一步获得
数学知识奠定必要的数学基础。

高等数学课程安排上下两个学期讲授, 其主要内容包括: 函数的极限与连续、一元函数的
微分学及其应用、一元函数积分学及其应用、向量代数与空间解析几何、多元函数的微积
分学及其应用、无穷级数、常微分方程和常系数差分方程等。

高等数学课程在传授知识的同时, 将通过各个教学环节逐步培养学生具有抽象概括问题
的能力、逻辑推理能力、空间想象能力和自学能力, 并注重培养学生具有比较熟练的运算能
力以及综合运用所学知识去分析问题和解决问题的能力。

湖南大学的高等数学课程是国家级精品课程, 该课程的教学团队是国家级教学团队。

Course description: There is no contents at present.

编 码: GE03027(-28)	Code:GE03027(-28)
课程名称: 高等数学 B	Course Title:Advanced Mathematics B
课程类别: 学门核心	Course category:Introductory Major Course
学 分: 10	Credit(s):10
开课单位: 数学与计量经济 学院	Offering College/School:College of Mathematics and Econometrics

课程描述: 高等数学课程是我校经管类学科各专业一门必修的重要基础理论课程, 它能使
学生获得微积分学方面的基本概念、基本理论和基本方法, 并为学习后继课程和进一步获得
数学知识奠定必要的数学基础。

高等数学课程安排上下两个学期讲授, 其主要内容包括: 函数的极限与连续、一元函数的
微分学及其应用、一元函数积分学及其应用、向量代数与空间解析几何、多元函数的微积
分学及其应用、无穷级数、常微分方程和常系数差分方程等。

高等数学课程在传授知识的同时, 将通过各个教学环节逐步培养学生具有抽象概括问题
的能力、逻辑推理能力、空间想象能力和自学能力, 并注重培养学生具有比较熟练的运算能
力以及综合运用所学知识去分析问题和解决问题的能力。

湖南大学的高等数学课程是国家级精品课程, 该课程的教学团队是国家级教学团队。

Course description: There is no contents at present.

编 码: GE03028	Code:GE03028
课程名称: 高等数学 B(2)	Course Title:Advanced Mathematics B(2)
课程类别: 学门核心	Course category:Introductory Major Course
学 分: 5	Credit(s):5
开课单位: 数学与计量经济 学院	Offering College/School:College of Mathematics and Econometrics

课程描述: 高等数学课程是我校经管类学科各专业一门必修的重要基础理论课程, 它能使
学生获得微积分学方面的基本概念、基本理论和基本方法, 并为学习后继课程和进一步获得
数学知识奠定必要的数学基础。

高等数学课程安排上下两个学期讲授, 其主要内容包括: 函数的极限与连续、一元函数的
微分学及其应用、一元函数积分学及其应用、向量代数与空间解析几何、多元函数的微积
分学及其应用、无穷级数、常微分方程和常系数差分方程等。

高等数学课程在传授知识的同时, 将通过各个教学环节逐步培养学生具有抽象概括问题
的能力、逻辑推理能力、空间想象能力和自学能力, 并注重培养学生具有比较熟练的运算能
力以及综合运用所学知识去分析问题和解决问题的能力。

湖南大学的高等数学课程是国家级精品课程, 该课程的教学团队是国家级教学团队。

Course description: There is no contents at present.

编 码: GE03030	Code:GE03030
课程名称: 高等代数 B	Course Title:Advanced Algebra B
课程类别: 学门核心	Course category:Introductory Major Course
学 分: 6	Credit(s):6
开课单位: 数学与计量经济 学院	Offering College/School:College of Mathematics and Econometrics

课程描述: 高等代数 B 是一门面向财经管理类专业的基础课, 为期一学期, 每周 8 学时, 其中讲课 6 学时, 习题课 2 学时。

高等代数是重要的数学基础课之一。它以严密的逻辑、系统的推理、抽象的思维作为其特点。高等代数 B 内容包括多项式, 行列式, 线性方程组, 矩阵理论, 二次型, 线性空间, 线性变换, 和欧几里得空间等。高等代数学被广泛地应用到自然科学的各个领域中。

Course description: Higher Algebra B is a basic course for financial management, a period of one semester, 8 hours per week, including 6 hours of lectures, exercise class 2 hours.

Higher Algebra is one of the important basic courses of mathematics. It is characterized by tight logic, systematic reasoning and abstract thinking. The contents of Higher Algebra,B include polynomial, determinant, system of linear equations, matrix theory, quadratic, linear space, linear transformation and Euclidean space. Higher algebra is widely applied to various fields of natural science.

编 码: GE03035(-37)	Code:GE03035(-37)
课程名称: 数学分析 B	Course Title:Mathematical Analysis B
课程类别: 学门核心	Course category:Introductory Major Course
学 分: 15	Credit(s):15
开课单位: 数学与计量经济 学院	Offering College/School:College of Mathematics and Econometrics

课程描述: 数学分析是经济类专业的核心课程。它主要研究实数域上函数的微分和积分, 所用的工具是极限理论。同时数学分析也为学生进一步学习提供必要的基础知识。

数学分析的研究内容主要包括四个部分: 极限理论, 一元微积分, 多元微积分以及级数理论。其中极限理论中的实数完备性理论和多元微积分中的隐函数定理及其应用, 因为比较抽象, 学生只需要了解即可, 不需要掌握。通过本课程的学习, 学生应当掌握数学分析的基本思想和方法, 并且能够应用这种思想和方法解决经济学方面的问题。

Course description: Mathematical Analysis is a core course for Economics. This course use the limit theories as a tool to study the differentiation and integration of the function which is defined in the real number field. It will also provide essential knowledge for higher studies.

Mathematical Analysis includes four parts: the limit theory, one variable calculus, multivariable calculus and series theory. The completeness theory of real numbers in the limit theory and the implicit function theorem and its application are very abstract, so we do not require the students to know them. By learning this course, the students should master the basic ideas and methods of mathematical analysis and then apply them to solve the economical problems.

编 码: GE03050**Code:**GE03050**课程名称:** 概率论与数理统计 C**Course Title:**Probability Theory and Mathematical Statistics C**课程类别:** 学门核心**Course category:**Introductory Major Course**学 分:** 5**Credit(s):**5**开课单位:** 数学与计量经济**Offering College/School:**College of Mathematics and
Econometrics

课程描述: 概率论与数理统计课程是我校经管类学科各专业一门必修的重要基础理论课程,它能使 学生获得概率论和数理统计方面的基本概念、基本理论和基本方法,并为学习后继课程和进一步获得数学知识奠定必要的数学基础。

概率论与数理统计课程安排一个学期讲授,其主要内容包括:随机事件及其概率、随机变量及其概率分布、随机向量及其概率分布、数字特征、大数定律和中心极限定理、样本和抽样分布、参数估计、假设检验等。

概率论与数理统计课程在传授知识的同时,将通过各个教学环节逐步培养学生具有抽象概括问题的能力、逻辑推理能力和自学能力,并注重培养学生综合运用所学知识去分析问题和解决问题的能力。

湖南大学的概率论与数理统计课程是湖南省级精品课程,该课程的教学团队是国家级教学团队。

Course description: There is no contents at present.

编 码: MA03001	Code:MA03001
课程名称: 数学分析(1)	Course Title:Mathematical Analysis 1
课程类别: 学门核心	Course category:Introductory Major Course
学 分: 6	Credit(s):6
开课单位: 数学与计量经济 学院	Offering College/School:College of Mathematics and Econometrics

课程描述: 本课程是数学专业各方向的学门核心课程,是链接高中数学与大学数学的重要桥梁课程。为学生进一步学习数学专业其他课程提供坚实的基础。

本课程主要包括实数集与函数,数列极限,函数极限,函数的连续性,一元函数微分学理论及其应用。学生需要了解实数的阿基米德性,极限和导数的相关背景材料。理解数列极限,函数极限,函数连续性,间断点,函数的一致连续性和导数的定义,能用相关定义证明、计算和判断相关问题。掌握数列极限和函数极限的收敛准则,归结原理,数列和函数极限的基本性质和运算,导数的基本性质和运算。并能灵活运用最大最小值定理,介值性定理,一致连续性定理,费马定理,罗尔定理,拉格朗日定理,柯西定理和泰勒公式研究函数的单调性,极值,最值,凹凸性,有界性等性质。并能用相关定理证明有关不等式。

通过本课程学习,使学生系统的深入的掌握数学分析 1 的基本理论,学会细致认真钻研学术问题的方法和严谨的数学语言和表示方法。注重现代数学思想的渗透,培养学生的逻辑思维能力和学习兴趣。提高数学素养,注重数学思想和数学理论水平的提高,而不是仅仅局限在数学方法和技巧的提高,为培养一批具有国际视野的数学人才打下坚实基础。

Course description: There is no contents at present.

编 码: MA03002	Code:MA03002
课程名称: 数学分析(2)	Course Title:Mathematical Analysis 2
课程类别: 学门核心	Course category:Introductory Major Course
学 分: 6	Credit(s):6
开课单位: 数学与计量经济 学院	Offering College/School:College of Mathematics and Econometrics

课程描述: 本课程是数学专业各方向的学门核心课程之一, 以数学分析 1 为前导课程, 为学生进一步学习数学分析 3, 常微分方程, 概率统计, 复变函数, 泛函分析, 等他课程提供坚实的基础。

本课程主要包括函数的凹凸性、实数的完备性理论, 不定积, 定积分, 定积分的应用, 反常积分, 级数, 函数项级数和幂级数。学生需要了解定积分在物理学上的应用, 上和与下和的性质, 可积充要条件的证明, 反常积分的相关背景材料等。理解实数完备性理论, 上下极限、不定积分、定积分、反常积分、级数、函数项级数、幂级数的定义和性质, 并能用实数完备性理论和以上相关定义和性质证明计算和判断相关问题。掌握函数的凹凸性、不定积分和定积分的计算、反常积分收敛性判定方法和反常积分的计算、级数和函数列及函数项级数的收敛和一致收敛性的判别, 幂级数的性质和幂级数的展开。并能灵活运用中值定理, 微分学基本定理研究函数的相关性质。

通过本课程学习, 使学生系统的深入的掌握数学分析 2 的基本理论, 学会细致认真钻研学术问题的方法和严谨的数学语言和表示方法。注重现代数学思想的渗透, 培养学生的逻辑思维能力和学习兴趣。提高数学素养, 注重数学思想和数学理论水平的提高, 而不是仅仅局限在数学方法和技巧的提高, 为培养一批具有国际视野的数学人才打下坚实基础。

Course description: There is no contents at present.

编 码: MA03003	Code:MA03003
课程名称: 数学分析(3)	Course Title:Mathematical Analysis3
课程类别: 学门核心	Course category:Introductory Major Course
学 分: 6	Credit(s):6
开课单位: 数学与计量经济 学院	Offering College/School:College of Mathematics and Econometrics

课程描述: 本课程是数学专业各方向的学门核心课程,以数学分析 1、数学分析 2、空间解析几何为前导课程,为学生进一步学习偏微分方程、复变函数,泛函分析、微分几何等他课程提供坚实的基础。

本课程主要包括傅里叶级数、多元函数的极限与连续、多元函数微分学和积分学理论、隐函数定理和含参变量积分。学生需要了解两类曲线积分的联系、两类曲面积分的联系、 n 重积分和反常二重积分。理解傅里叶级数性质及其收敛定理的证明、多元函数的极限的定义及其性质、多元函数的偏导数和方向导数的定义及其性质、隐函数存在性定理及其证明、含参变量正常积分和反常积分的性质,曲线积分和重积分及曲面积分的定义和性质。掌握傅里叶级数的展开、多元函数极限的运算、各种重积分和曲线积分及曲面积分的运算。并能灵活运用多元函数的中值定理、泰勒公式、条件极值理论、隐函数存在性定理、高斯公式、格林公式、斯托克斯公式解决相关问题和应用问题。

通过本课程学习,使学生系统的深入的掌握数学分析 3 的基本理论,学会细致认真钻研学术问题的方法和严谨的数学语言和表示方法。注重现代数学思想的渗透,培养学生的逻辑思维能力和学习兴趣。提高数学素养,注重数学思想和数学理论水平的提高,而不是仅仅局限在数学方法和技巧的提高,为培养一批具有国际视野的数学人才打下坚实基础。

Course description: There is no contents at present.

编 码: MA03004**Code:**MA03004**课程名称:** 高等代数(1)**Course Title:**Advanced Algebra (1)**课程类别:** 学类核心**Course category:**Major Survey Course**学 分:** 6**Credit(s):**6**开课单位:** 数学与计量经济**Offering College/School:**College of Mathematics and
Econometrics
学院

课程描述: 本课程是数学与应用数学专业、信息与计算科学专业的学类核心课程，是许多后续课程进一步学习的基础。

本课程主要包括多项式、行列式、线性方程组、矩阵等内容。学生需了解高等代数里的主要问题、基本概念和重要方法，理解矩阵在高等代数中的重要地位，掌握多项式、行列式、线性方程组、矩阵的基本理论，尤其是常见的矩阵技巧及其应用。通过本课程的学习，学生应学会高等代数中的抽象知识体系，掌握具体的计算技巧和方法，锻炼和提升分析解决相关数学问题的能力。

Course description: This course is a major survey course for mathematics and applied mathematics major and information and computer science major, is the foundation of many subsequent courses.

The course includes polynomials, determinants, systems of linear equations and matrices. The students need to understand the main problems, basic concepts and important methods in advanced algebra, to know the importance of matrices in advanced algebra, and to master the basic theory of polynomials, determinants, systems of linear equations and matrices, especially the techniques involving matrices with applications. Via this course, the students should know the abstract systems in advanced algebra, master the skills and methods of computations, practice and advance the ability of analyzing and solving related problems.

编 码: MA03005	Code:MA03005
课程名称: 高等代数(2)	Course Title:Advanced Algebra (2)
课程类别: 学类核心	Course category:Major Survey Course
学 分: 6	Credit(s):6
开课单位: 数学与计量经济 学院	Offering College/School:College of Mathematics and Econometrics

课程描述: 本课程是数学与应用数学专业、信息与计算科学专业的学类核心课程, 是许多后续课程进一步学习的基础。

本课程主要包括二次型, 线性空间, 线性变换, n -矩阵, 欧几里得空间等内容。学生需了解线性空间及线性变换在高等代数中核心地位, 理解线性变换的重要作用以及与矩阵之间的密切联系, 掌握二次型、线性变换、 n -矩阵及欧几里得空间的基本理论和方法。通过本课程的学习, 学生应学会高等代数中的抽象知识体系, 掌握线性空间、线性变换及欧几里得空间的基本性质和方法技巧, 锻炼和提升分析解决相关数学问题的能力。

Course description: This course is a major survey course for mathematics and applied mathematics major and information and computer science major, and is the foundation of many subsequent courses.

The course includes quadratic forms, linear spaces, linear transformations, n -matrices and Euclidean spaces. The students need to understand the central role played by linear spaces and linear transformations in advanced algebra, to know the importance of linear transformations and its relations with matrices, and to master the basic theory and methods of quadratic forms, linear transformations, n -matrices and Euclidean spaces. Via this course, the students should know the abstract systems in advanced algebra, master the skills and methods of linear spaces and transformations, Euclidean spaces, practice and advance the ability of analyzing and solving related mathematical problems.

编 码: MA03006	Code:MA03006
课程名称: 空间解析几何	Course Title:Space analytic geometry
课程类别: 学类核心	Course category:Major Survey Course
学 分: 4	Credit(s):4
开课单位: 数学与计量经济 学院	Offering College/School:College of Mathematics and Econometrics

课程描述: 空间解析几何是大学数学类专业的重要基础课之一, 本课程的教学目的是培养学生的空间想象能力以及解决问题的能力, 并为以后学习其他数学课程作准备。它的特点是用代数方法研究几何问题。通过本课程的学习, 使学生掌握向量代数, 空间曲线、平面的基本性质。

Course description: Space analytic geometry is one of the important basic course in university mathematics professional, the purpose of this course is to cultivate students' ability of space imagination and ability to solve problems, and to prepare for the future study of other mathematics curriculum. Its characteristic is to study geometric problems by algebraic method. Through the studying of this course, make students master the vector algebra, basic properties of space curve and plane.

编 码: MA04001	Code:MA04001
课程名称: 常微分方程	Course Title: Ordinary Differential Equation
课程类别: 学类核心	Course category: Major Survey Course
学 分: 4	Credit(s): 4
开课单位: 数学与计量经济 学院	Offering College/School: College of Mathematics and Econometrics

课程描述: 本课程是数学专业的学类核心课程, 以数学分析、高等代数等课程为前导课程, 并为常微分方程定性及稳定性理论方面课程学习提供基础理论指导。

本课程主要包括一阶微分方程的初等解法、一阶微分方程的解的存在定理、高阶微分方程和线性微分方程等内容, 学生需了解微分方程数学模型的应用背景, 理解一阶微分方程的解的存在定理, 掌握一阶微分方程、高阶微分方程以及线性微分方程的初等解法, 并能灵活运用微分方程的解的存在定理解决实际问题等。通过学习本课程, 学生学会简单的微分方程建模, 获得求解简单方程、方程组的能力, 锻炼和提升实际应用能力以及分析系统动力学性质的能力。

Course description: This course is the core curriculum of mathematics specialty, with Mathematical Analysis and Higher Algebra for leading courses and often providing basic theory to guide for Qualitative and Stability Theory of Differential Equation.

This course mainly includes the elementary solution to the first-order differential equations, the solution existence theorem of the first-order differential equation, the high order differential equations and linear differential equation. All students are required to know the background of the application of mathematical model of differential equations, understand the solution existence theorem of the first-order differential equation, grasp the elementary solution of the first-order differential equations, higher order differential equations and linear differential equations and solve flexibly practical problems by use of differential equation solution existence theorem. By studying this course, students can learn how to model simple differential equations, get how to solve some simple equation and some equations, and furthermore improve practical application ability and analysis ability of the dynamic system.

编 码: MA04002

Code:MA04002

课程名称: 概率论

Course Title:Probability Theory

课程类别: 学类核心

Course category:Major Survey Course

学 分: 4

Credit(s):4

开课单位: 数学与计量经济
学院

Offering College/School:College of Mathematics and
Econometrics

课程描述: 本课程是数学与应用数学专业的学类核心课程, 以数学分析和高等代数为先修课程, 是继续学习数理统计、随机过程等课程的基础。

本课程主要包括随机事件与概率、随机变量及其分布、多维随机变量及其分布、大数定律与中心极限定理等内容。通过本课程的学习, 不仅使学生掌握概率论的基础知识, 而且使学生学到随机数学的基本研究方法, 另外还可以训练学生合理利用概率的思维方式来分析和解决问题的能力, 为学生学习后继课程打下良好的基础。

Course description: There is no contents at present.

编 码: MA04004**Code:**MA04004**课程名称:** 复变函数**Course Title:**Complex Variable Functions**课程类别:** 学类核心**Course category:**Major Survey Course**学 分:** 4**Credit(s):**4**开课单位:** 数学与计量经济
学院**Offering College/School:**College of Mathematics and
Econometrics

课程描述: 本课程是数学与应用数学、信息与计算科学两个专业的专业核心课程,以数学分析、高等代数等课程为前导课程,为与复变函数相关课程提供了学习的基础。本课程主要包括复数与复变函数、解析函数、复变函数的积分、解析函数的幂级数表示法、解析函数的洛朗展开与孤立奇点、留数的理论及其应用和共形映射等内容。

Course description: This course develops the theory of functions of a complex variable. Introduction covers complex numbers; complex functions; sequences and continuity; and differentiation of complex functions. Representation formulas covers integration of complex functions; Cauchy's theorem and Cauchy's integral formula; Taylor series; and Laurent series. Calculus of residues covers residue calculus; winding number and the location of zeros of complex functions; Conformal mapping.

编 码: MA04006	Code:MA04006
课程名称: 数学模型	Course Title:Mathematical Modeling
课程类别: 专业核心	Course category:Required Core Course
学 分: 4	Credit(s):4
开课单位: 数学与计量经济 学院	Offering College/School:College of Mathematics and Econometrics

课程描述: 本课程是信息与计算科学专业的专业核心课程, 数学与应用数学专业的选修课程, 以高等代数、数学分析、常微分方程、概率论与数理统计等课程为前导课程, 为以后的学习以及参加数学建模竞赛提供基础。

本课程主要包括初等模型、优化模型、微分和差分方程模型、规划模型、概率统计模型、离散模型以及其他常见模型等内容。学生需了解运用数学描述、分析、求解实际问题的一般规律和过程, 理解数学建模的常见思想和方法, 掌握常见类型的模型的建立和求解, 以及相关数学软件的应用, 并能灵活运用所学知识解决实际问题。通过本课程的学习, 学生应学会熟练运用各种数学工具和软件, 建立和求解简单的数学模型; 锻炼和提升分析解决实际问题的能力。

Course description: This course is required core course for information and computer science major, and restricted elective course for mathematics and applied mathematics major. The prerequisite courses include advanced algebra, mathematical analysis, ordinary differential equations, probability theory and mathematical statistics. It's aimed to provide necessary background for later study and mathematical modeling contests.

The course includes elementary models, optimization models, differential and difference equation models, programming models, probability and statistics models and other models. The students need to understand the general rules and process of how to use mathematics to describe, analyze and solve practical problems, to know the general ideas and methods in mathematical modeling, to construct and solve the common mathematical models, to apply the related mathematical software, and to master how to use the knowledge and techniques in class to solve problems in practice. Via this course, the students should proficiently apply mathematical tools and software to construct and solve mathematical models, practice and advance the ability of analyzing and solving practical problems.

编 码: MA04007**Code:**MA04007**课程名称:** 偏微分方程**Course Title:**Partial Differential Equations**课程类别:** 专业核心**Course category:**Required Core Course**学 分:** 4**Credit(s):**4**开课单位:** 数学与计量经济
学院**Offering College/School:**College of Mathematics and
Econometrics

课程描述: 本课程是数学专业的专业核心课程,以数学分析、高等代数、复变函数和常微分方程等为前导课程,为进一步选修现代偏微分方程理论、数值计算、控制理论与几何分析等课程提供理论基础。

本课程主要包括波动方程,热传导方程与调和方程这三类典型的偏微分方程及一般二阶线性偏微分方程的分类等内容。学生需了解方程的背景知识,理解方程的导出,熟练掌握求解这三类方程的定解问题的方法,如分离变量法、富里埃变换方法、能量积分法以及解的性质的讨论。能从物理模型和数学理论两个方面,理解并把握这三类方程解的共同点和不同点。通过学习本课程,学生学会应用分析的知识建立偏微分方程模型,获得偏微分方程的基本理论知识,锻炼和提升应用理论知识解决实际问题的能力,提升数学素养等。

Course description: There is no contents at present.

编 码: MA04008	Code:MA04008
课程名称: 高等代数(1)	Course Title:Advanced Algebra I
课程类别: 学类核心	Course category:Major Survey Course
学 分: 6	Credit(s):6
开课单位: 数学与计量经济 学院	Offering College/School:College of Mathematics and Econometrics

课程描述: 本课程是数学与应用数学专业、信息与计算科学专业的学类核心课程, 是许多后续课程进一步学习的基础。

本课程主要包括多项式、行列式、线性方程组、矩阵等内容。学生需了解高等代数里的主要问题、基本概念和重要方法, 理解矩阵在高等代数中的重要地位, 掌握多项式、行列式、线性方程组、矩阵的基本理论, 尤其是常见的矩阵技巧及其应用。通过本课程的学习, 学生应学会高等代数中的抽象知识体系, 掌握具体的计算技巧和方法, 锻炼和提升分析解决相关数学问题的能力。

Course description: This course is a major survey course for mathematics and applied mathematics major and information and computer science major, is the foundation of many subsequent courses.

The course includes polynomials, determinants, systems of linear equations and matrices. The students need to understand the main problems, basic concepts and important methods in advanced algebra, to know the importance of matrices in advanced algebra, and to master the basic theory of polynomials, determinants, systems of linear equations and matrices, especially the techniques involving matrices with applications. Via this course, the students should know the abstract systems in advanced algebra, master the skills and methods of computations, practice and advance the ability of analyzing and solving related problems.

编 码: MA04009	Code:MA04009
课程名称: 高等代数(2)	Course Title:Advanced Algebra II
课程类别: 学类核心	Course category:Major Survey Course
学 分: 6	Credit(s):6
开课单位: 数学与计量经济 学院	Offering College/School:College of Mathematics and Econometrics

课程描述: 本课程是数学与应用数学专业、信息与计算科学专业的学类核心课程, 是许多后续课程进一步学习的基础。

本课程主要包括二次型, 线性空间, 线性变换, n -矩阵, 欧几里得空间等内容。学生需了解线性空间及线性变换在高等代数中核心地位, 理解线性变换的重要作用以及与矩阵之间的密切联系, 掌握二次型、线性变换、 n -矩阵及欧几里得空间的基本理论和方法。通过本课程的学习, 学生应学会高等代数中的抽象知识体系, 掌握线性空间、线性变换及欧几里得空间的基本性质和方法技巧, 锻炼和提升分析解决相关数学问题的能力。

Course description: This course is a major survey course for mathematics and applied mathematics major and information and computer science major, and is the foundation of many subsequent courses.

The course includes quadratic forms, linear spaces, linear transformations, n -matrices and Euclidean spaces. The students need to understand the central role played by linear spaces and linear transformations in advanced algebra, to know the importance of linear transformations and its relations with matrices, and to master the basic theory and methods of quadratic forms, linear transformations, n -matrices and Euclidean spaces. Via this course, the students should know the abstract systems in advanced algebra, master the skills and methods of linear spaces and transformations, Euclidean spaces, practice and advance the ability of analyzing and solving related mathematical problems.

编 码: MA05002	Code:MA05002
课程名称: 近世代数(双语)	Course Title:Abstract Algebra (Bilingual)
课程类别: 专业核心	Course category:Required Core Course
学 分: 5	Credit(s):5
开课单位: 数学与计量经济 学院	Offering College/School:College of Mathematics and Econometrics

课程描述: 本课程是数学与应用数学专业的专业核心课程, 以高等代数为前导课程, 为代数数论、李群基础及代数几何方面课程学习提供基础。

寻找多项式方程的求根公式占据了人类很长的一段历史。授课内容上, 我们从这个故事讲起, 告诉学生们真实的历史是人们先引入域的概念, 其次是环, 最后才是群, 而通常的教科书上的讲授顺序与这一顺序恰好相反。我们还会叙述 Galois 的可解性定理, 为整个课程埋下主线索。我们从描述几何图形的对称性和对称群出发, 较为形象地引入群的概念, 然后再讲述抽象的群的结构理论。环论部分我们讲述理想、中国剩余定理和 Zariski 拓扑。域论部分我们讲述域扩张、有限域、尺规作图和 Galois 理论。最后, 我们提供若干可供选择的课题, 让学生分组, 选择其中的一个课题做 Project, 通过查阅文献、小组讨论的方式开展研究, 写出书面研究报告并做演讲。

通过学习本课程, 学生会得到抽象思维能力的严格训练。本课程的知识会为学生将来在代数数论、李群基础等其它后续课程的学习提供重要的基础。本课程在信息科学中(比如编码理论)也有重要的应用。另外, 通过选择课题开展分组研究, 学生会获得团队合作、查阅文献、书面和口头表达能力的提升。

Course description: Being a core course for the students majoring in mathematics and applied mathematics, abstract algebra assumes advanced algebra as the preliminary course, and lay foundations for courses such as algebraic number theory, basic Lie groups and algebraic geometry.

Finding the roots to a polynomial equation occupied quite a long time in our human history. We start with a brief summary of this story, and tell the students that chronologically people introduced fields firstly, then rings, and finally groups. However, a standard textbook introduces these concepts in the reverse order. We also state Galois' solvability theorem, and use it as the main theme of the entire course. We teach the group theory via two steps: Firstly, we warm up vividly by studying permutation groups and the symmetry groups of geometric figures. Secondly, we study the abstract group theory. For ring theory, we focus on ideals, the Chinese remainder theorem, and the Zariski topology. For field theory, we talk about field extensions, finite fields, construction with straight-edge and compass, and Galois theory. Finally, we offer several projects and allow the students to choose one of them to work on: They group together, check the literature, apply the knowledge learned from this course, and collaborate. They should present a report on the selected topic and give a presentation.

Through this course, students will obtain the ability of abstract thinking. Knowledge from this course will prepare them for subsequent courses such as algebraic number theory, basic Lie groups and algebraic geometry. This course has applications in information theory (say coding theory) as well. Doing the projects will improve students' ability in collaboration, reference finding, written and oral expression.

编 码: MA05003**Code:**MA05003**课程名称:** 实变函数**Course Title:**Real Variable Functions**课程类别:** 学类核心**Course category:**Major Survey Course**学 分:** 4**Credit(s):**4**开课单位:** 数学与计量经济
学院**Offering College/School:**College of Mathematics and
Econometrics

课程描述: 实变函数是基础数学与应用数学专业的核心课程，以数学分析，线性代数为先导课程，为学生学习近现代分析学，例如：泛函分析，函数论，微分方程，概率论等，打下基础。

本课程研究比连续函数更广的函数的积分理论，在现代数学的各个分支中有非常广泛的应用。本课程的目的是使学生掌握 Lebesgue 测度和 Lebesgue 积分，初步接触抽象测度论，熟悉分析学中常用的 L^p 函数空间，特别是 L^2 空间，为今后从事偏微分方程，概率论等更专门课程的学习和研究作必要的准备。

Course description: There is no contents at present.

编 码: MA05004**Code:**MA05004**课程名称:** 微分几何**Course Title:**Differential Geometry**课程类别:** 专业核心**Course category:**Required Core Course**学 分:** 4**Credit(s):**4**开课单位:** 数学与计量经济
学院**Offering College/School:**College of Mathematics and
Econometrics

课程描述: 微分几何课程运用微积分和线性代数等方法来研究三维欧氏空间中曲线和曲面的形状及性质,找出决定曲线和曲面的形状的不变量系统。微分几何课程是高等院校数学与应用数学专业的一门重要几何类课程。通过这门课程的学习,使学生掌握该课程的基本概念、基本理论和基本方法,培养学生运用微积分和线性代数等方法来处理几何问题的能力,培养学生几何直观和图形想象的能力,从具体到抽象的能力,为进一步学习现代微分几何打下坚实的基础。

Course description: There is no contents at present.

编 码: MA05005	Code:MA05005
课程名称: 泛函分析	Course Title:Functional Analysis
课程类别: 学类核心	Course category:Major Survey Course
学 分: 4	Credit(s):4
开课单位: 数学与计量经济 学院	Offering College/School:College of Mathematics and Econometrics

课程描述: 随着数学物理方程以及量子力学理论的推动, 在整理概括了很多经典的分析和函数论的成果后, 泛函分析逐渐发展成了综合运用代数、拓扑结构等手段来处理具体的分析问题的数学分支。泛函分析作为一门内容丰富、方法系统、体系完整、运用广泛的数学分支, 在现代数学中正扮演着越来越重要的作用。作为本科生水平的泛函分析课程, 我们主要介绍泛函分析的基本概念及主要定理。课程的主要内容包括: 度量空间、Banach 空间、Hilbert 空间等; 主要定理包括: 不动点原理、Hahn-Banach 延拓定理、一致有界原理、Banach 空间上的逆算子定理、闭图像定理等重要的泛函分析上的基本定理。课程讲授中坚持由具体到抽象的基本原则, 力求通过介绍泛函分析在常/偏微分方程、积分方程、函数逼近论、傅里叶分析及数学规划等理论上的运用, 使学生体会到抽象的泛函分析方法解决具体的经典问题的魅力。该课程的教学目标在于让学生掌握泛函分析的基本概念、基本定理和基本方法。课程讲述注重让学生从泛函分析的角度, 加深或重构对于以往数学知识的认识, 并培养和发展运用泛函分析方法解决其他实际数学问题的能力, 为将来的学习做好准备。

Course description: This course is a required core course for Juniors in the speciality of applied mathematics. The materials includes metric spaces, Banach spaces, Hilbert spaces and some important spectral theory in Hilbert spaces. In this course, we present many of the most fundamental theorems of functional analysis, for example, the uniform boundedness principle, inverse operator theorem in Banach spaces, closed graph theorem and etc. At the same time, we provide some applications to important problems arising from integral equations, ordinary and partial differential equations, real or Fourier analysis. We hope, this would illustrate to the student the invaluable role played by functional analysis in solving concrete problems in many other branches of mathematics.

编 码: MA05007	Code:MA05007
课程名称: 拓扑学基础	Course Title:Basics of Topology
课程类别: 专业核心	Course category:Required Core Course
学 分: 3	Credit(s):3
开课单位: 数学与计量经济 学院	Offering College/School:College of Mathematics and Econometrics

课程描述: 本课程是数学与应用数学专业的专业核心课程, 以数学分析和实变函数为前导课程, 为几何与分析、微分流形、代数拓扑等方面课程学习提供前期准备。

本课程主要内容包括拓扑空间及其子空间、乘积空间和商空间的基本概念和性质;拓扑空间之间的拓扑不变性, 包括分离性、可数性、连通性、紧性等;以及拓扑空间可度量的问题。目的是让学生全面系统的掌握一般拓扑学的基础知识, 学会用公理化的方法研究源于几何学有很强几何背景的问题, 提高他们的逻辑推理和抽象思维能力, 为学生日后更加深入的在相关领域开展研究打好基础。

Course description: This course is a core course for the students majoring in mathematics and applied mathematics. The prerequisite for the course is a first course in Real Analysis. It provide a foundation for algebraic topology、differentiable manifold、geometry and analysis, and so on.

Main contexts of this course include the basic concepts and properties of the topological spaces, subspaces, product spaces, and quotient spaces, invariance properties between topological spaces: separation property, countability, connectivity, compactness and so on; the metrizable problem among topological spaces. The purpose of this course is to let students master the basic knowledge comprehensively and systematically, to let them learn to use the mathematic method to study the problem from the geometry, and improve their ability of the logic and abstract thought.

编 码: MA05015**Code:**MA05015**课程名称:** 数理统计**Course Title:**Mathematical Statistics**课程类别:** 专业核心**Course category:**Required Core Course**学 分:** 4**Credit(s):**4**开课单位:** 数学与计量经济
学院**Offering College/School:**College of Mathematics and
Econometrics

课程描述: 数理统计是应用数学与信息学科的专业核心课程,以数学分析,高等代数,概率论为前导课程,为进一步学习随机方面的课程学习提供了基础。本课程主要包括有统计量,参数估计、假设检验、方差分析、回归分析等内容。学生需要了解随机现象的观察试验取得资料,掌握概率论为理论基础来研究随机现象,并能灵活运用资料为随机现象选择数学模型,且利用数学资料来验证数学模型是否合适,在合适的基础上再研究它的特点,性质和规律性。通过学习本课程,学生学会收集数据、合理假设、数据分析,获得统计分析结果,锻炼和提升综合应用数理统计的能力

Course description: There is no contents at present.

编 码: MA05016	Code:MA05016
课程名称: 数值分析(双语)	Course Title:Numerical Analysis (Bilingual)
课程类别: 专业核心	Course category:Required Core Course
学 分: 5	Credit(s):5
开课单位: 数学与计量经济 学院	Offering College/School:College of Mathematics and Econometrics

课程描述: 数值分析是对数学和工程问题通过数值计算从而得到数值解答的基本理论和方法。随着计算机的快速发展和普及,数值分析这门课程在科学计算、工程技术等领域有越来越广泛的应用,已经成为应用科学工作者和工程人员的必备基础知识。本课程主要包括四个部分。第一部分是线性代数方程组的求解,包括直接方法和迭代方法。第二部分是矩阵特征值问题的计算。第三部分是非线性方程的数值求解。第四部分函数插值逼近。第五部分是数值积分。

Course description: Numerical analysis can provide basic theories and methods for numerical solutions to mathematical problems and engineering problems. With the development and popularization of computers, numerical analysis has more and more applications in scientific computation, engineering and technology, and it becomes necessary for applied scientists and engineers. The course of numerical analysis consists of five parts. The first part is about numerical methods for the solutions of systems of equations. These methods include direct methods and iterative methods. The second part is devoted to computation of eigenvalue problems for matrices. The numerical solution for nonlinear equations is introduced in the third part. Interpolation for functions is presented in the forth part. Numerical integration is discussed in the fifth part.

编 码: MA05017**Code:**MA05017**课程名称:** 数据结构与算法分析**Course Title:**Database Structure and Algorithms Analysis**课程类别:** 专业核心**Course category:**Required Core Course**学 分:** 4**Credit(s):**4**开课单位:** 数学与计量经济**Offering College/School:**College of Mathematics and
Econometrics

课程描述: 数据结构是为信息专业开设的专业必修课。该课程要求学生熟练地掌握数据结构的基本概念、特性、存储结构及相关算法;熟悉它们在计算机科学中最基本的应用;培养和训练学生能运用高级程序设计语言编写结构清晰、可读性好的算法及初步评价算法的能力。主要内容包括:线性表、栈、队列、数组、串、树、二叉树、图等基本数据结构及其应用;排序和查找的原理与方法。

Course description: Data Structures is a compulsory course for students of information and computing science. The purpose of this course is to understand the basic theory and the data structures, design highly efficient algorithms, and use them in real world applications. The key contents are linked lists, stacks, queues, trees, graphs, searching and sorting algorithms.

编 码: MA05018	Code: MA05018
课程名称: 最优化理论与方法	Course Title: Optimization Theory and Methods
课程类别: 专业核心	Course category: Required Core Course
学 分: 4	Credit(s): 4
开课单位: 数学与计量经济 学院	Offering College/School: College of Mathematics and Econometrics

课程描述: 本课程是信息与计算数学专业的专业核心课程,以数学分析、高等代数和数值分析为前导课程,为计算数学、应用数学、运筹学和经济或工程计算方面课程学习提供技术支撑和理论指导。

本课程主要介绍处理最优化问题的基本理论和算法,包括凸分析理论和最优性条件与对偶理论,以及最优化的算法包括无约束问题的下降算法以及约束优化问题的计算方法。学生需了解最优化学科的发展概况以及应用前景,理解最优化理论的基本概念,掌握最优化的算法和收敛性分析方法,并能灵活运用最优化理论和方法解决实际优化问题。通过学习本课程,学生学会处理最优化问题的基本理论和方法,受到严格的逻辑思维与数值计算能力的训练,锻炼和提升了科学计算能力和解决实际问题的能力。

Course description: There is no contents at present.

编 码: EI04029	Code:EI04029
课程名称: 电路	Course Title:Circuit
课程类别: 学类核心	Course category:Major Survey Course
学 分: 3	Credit(s):3
开课单位: 物理与微电子科学学院	Offering College/School:College of Physics and Microelectronic Science

课程描述: 本课程是电子科学与技术专业的专业核心课程, 以高等数学和大学物理为前导课程, 为模拟电子技术、数字电子技术、信号与系统等方面课程学习提供基础和理论支撑。本课程主要包括电路模型、电路定律、电阻电路等效变换及一般分析、电路定理、运算放大电路、一阶和二阶电路时域分析、相量法、正弦稳态电路分析和耦合电感电路等内容, 学生需了解电路的基本构成单元和组合形式, 理解各器件的特性和各种定义的内容实质, 掌握基本定理和定律的由来和内容, 并能灵活运用一般电路分析原理和正弦稳态电路的分析方法。通过学习本课程, 学生学会电路分析的基本方法, 获得高级、复杂电路分析的基本思路, 锻炼和提高分析问题和解决问题的能力, 有助于培养学生学科交叉、创业创新意识的。

Course description: This course is a professional core course of Electronic Science and Technology, which is based on advanced mathematics and college physics. This course also serves as the basis and theory support for the analog electronic technology, digital electronic technology, signal and system course. This course mainly includes the contents of the circuit model, circuit laws, resistance circuit equivalent transform and general analysis, circuit theorem, operation amplifier circuit, the first-order and second-order circuit time domain analysis, the vector method, sine steady-state circuit analysis and coupled inductor circuit. Students need to understand the solution of circuit basic structure unit and a combined form, the device characteristics and various definitions of substance, master basic theorem and law origin and contents, and flexibility in the use of the general circuit analysis and principle of sinusoidal steady state circuit analysis method. By learning this course, students learn the circuit analysis basic method, the basic idea of the high-level, complex circuit analysis, exercise and improve the problem analysis and problem solving ability, to cultivate students' cross discipline, innovation and entrepreneurial consciousness.

编 码: EI04030	Code:EI04030
课程名称: 信号与系统	Course Title:Signals and Systems
课程类别: 学类核心	Course category:Major Survey Course
学 分: 3	Credit(s):3
开课单位: 物理与微电子科 学学院	Offering College/School:College of Physics and Microelectronic Science

课程描述: 《信号与系统》是电子科学与技术专业核心课程，以电路分析为前导课程，为数字信号处理、通信原理、信号检测与估计等课程的学习打下坚实的基础。

本课程主要包括基本信号和基本系统的性质，以及分析这些信号和系统的基本原理和方法。通过本课程的学习，学生需要熟练掌握信号与系统的基本分析方法和原理，具备有关信号分析处理以及系统分析的综合能力，并且能够灵活地将电路分析的知识应用到信号与信息处理的知识领域。

Course description: Signals and Systems is a core course for Electronic Science and Technology discipline. With Circuit Analysis as the prerequisite course, the Signals and Systems course will provide solid fundamental knowledge for Digital Signal Processing, Principles of Communication, and Signal Detection and Estimation.

Signals and Systems is mainly about the properties of based signals and based systems, and the principles and ways of analyzing those signals and systems. By the study of this course, students should know well about the basic methods and theories, together with the comprehensive ability in signals and systems analysis. Also, this course will guide the students to convert their relative research fields from circuit analysis to signal and information process. Furthermore, the students will develop their comprehensive ability to solve the practical problems in signal process filed.

编 码: EI04031	Code: EI04031
课程名称: 高频电子线路	Course Title: High Frequency Electronic Circuit
课程类别: 学类核心	Course category: Major Survey Course
学 分: 3	Credit(s): 3
开课单位: 物理与微电子科学学院	Offering College/School: College of Physics and Microelectronic Science

课程描述: 本课程是电子信息类的专业核心课程, 以电路、模拟电子线路为前导课程, 为射频通信、微波通信和数字通信方面课程学习提供专业基础。

本课程主要包括选频网络、小信号放大器、高频功率放大器、正弦波振荡器、时变参量电路和调制与解调等内容, 学生需要了解模拟通信系统的结构, 掌握谐振回路、谐振放大器、高频功率放大器和调制与解调电路的工作原理, 并能灵活运用实际工作中。通过学习本课程, 学生能获得无线电通信技术的专业知识, 锻炼和提升学生的实践工程能力, 较好地完成分析和解决各类实际问题。

Course description: This course is a professional core course of Electronic Science and Technology, which is based on Solid State Physics and Semiconductor Physics. This course also serves as the basis and theory support for the Design of Semiconductor Integrated Circuit course.

This course mainly includes the contents of the PN junction, bipolar junction transistor, and metal-oxide-semiconductor field-effect-transistor. Students need to know the structure, the principle and the performance of the devices, and understand the dependence of the device characteristics on the structure, material, and the process. By learning this course, students learn the device analysis basic method, the basic idea of the device principle, exercise and improve the device analysis and design ability.

编 码: EI04032	Code: EI04032
课程名称: 微机原理及其应用	Course Title: Microcomputer Principles and Applications
课程类别: 学类核心	Course category: Major Survey Course
学 分: 3	Credit(s): 3
开课单位: 物理与微电子科学学院	Offering College/School: College of Physics and Microelectronic Science

课程描述: 本课程是电子科学与技术专业的一门专业核心课程, 本课程包括微机的基本原理、计算机运算基础、微处理器结构、半导体存储器等内容, 以 Intel 8086 16 位微处理器为背景, 从应用角度系统阐述微机的基本原理; 介绍计算机运算基础、微处理器结构、半导体存储器、指令系统及汇编语言程序设计、输入/输出与中断技术、常用 I/O 接口芯片: 8255、8253、8259、16550 等的特点和使用技巧。通过本课程的学习, 学生可以获得微机方面的知识, 了解微机的原理, 以及微机的应用。

Course description: This course includes Intel 8086 16 bits microprocessor, and the other is MCS-51 single-chip microcomputer. Intel 8086 16 bits microprocessor is the main part of the course. Major topics includes: Basic principle of microcomputer; Arithmetic foundation of computer, structure of microprocessor, semiconductor memory, instruction system, programming of assembly language, input/output and interrupt technology, the characteristic and application technique for usually interfacing chips: 8255、8253、8259、16550. The advanced microprocessor is introduced in brief in order to expand students' vision and develop their abilities. The key content includes programming of assembly language and interfacing technology. A student may be engaged in microcomputer applications, especially in research and develop in microcomputer measurement and control system after he has obtained the course credit. The course is also hardware and software foundations of microcomputer for following relation major courses.

编 码: EI05030	Code: EI05030
课程名称: 半导体物理	Course Title: Semiconductor Physics
课程类别: 专业核心	Course category: Required Core Course
学 分: 3	Credit(s): 3
开课单位: 物理与微电子科学学院	Offering College/School: College of Physics and Microelectronic Science

课程描述: 本课程是电子科学与技术专业的专业核心课程, 以固体物理为前导课程, 为半导体器件、半导体集成电路等课程学习提供理论与应用基础。本课程主要包括半导体的导电性能、能带理论、载流子传输规律、接触特性及光电性质等内容。学生需要了解半导体的基本性质, 理解半导体的导电机理和能带理论, 掌握半导体的导电特性和电流连续性方程, 并能灵活运用相关方程式描述电流电压特性等。通过学习本课程, 学生学会半导体中电子运动规律与基本物理性质, 获得半导体的能带理论与电子状态, 载流子的统计分布与运动规律、金属与半导体接触的基本理论等知识, 锻炼和提升应用半导体基本理论分析解决问题的能力, 为今后从事半导体相关课程学习和实际应用打下重要的理论基础。

Course description: Semiconductor Physics is a major course of electronic science and technology specialty, which is basing on solid state physics and serving for the next course of semiconductor devices, semiconductor integrated circuit, etc. This course has the content of electrical conductivity of the semiconductor, band theory, carrier transmission mechanism, contact characteristics and photoelectric properties, etc. Students should understand the semiconductor fundamental properties, the conductive mechanism and band theory, master the electrical conductivity and current continuity equation, use some related equations to describe the semiconductor based current-voltage characteristics. By learning this course, students can learn the electron motion law and basic physical properties of semiconductor, to get the band theory and electronic state theory, the rule of statistical distribution and movement of the carrier, the contact model of metal-semiconductor interface. Especially, they can exercise and acquire the ability of solving basic semiconductor problems, which is engaged in their future study and working application.

编 码: EI05031**Code:** EI05031**课程名称:** 电子器件基础**Course Title:** Fundamentals of Electronic Devices**课程类别:** 专业核心**Course category:** Required Core Course**学 分:** 3**Credit(s):** 3**开课单位:** 物理与微电子科学学院**Offering College/School:** College of Physics and Microelectronic Science

课程描述: 本课程是电子科学与技术专业的专业核心课程,以《固体物理》、《半导体物理》为前导课程,为集成电路设计方面课程学习提供理论基础。

本课程主要包括 PN 结、双极型晶体管、金属-氧化物-半导体场效应管等内容,学生需了解器件结构、原理、特性,理解器件内部载流子运动和电荷变化的规律,掌握器件特性与结构、材料、工艺的关系,并能灵活运用器件原理设计不同性能器件。通过学习本课程,学生学会宏观和微观、定性和定量的分析器件,获得对半导体器件本质的理解,锻炼和提升半导体器件的研究、设计能力。

Course description: This course is a professional core course of Electronic Science and Technology, which is based on Solid State Physics and Semiconductor Physics. This course also serves as the basis and theory support for the Design of Semiconductor Integrated Circuit course.

This course mainly includes the contents of the PN junction, bipolar junction transistor, and metal-oxide-semiconductor field-effect-transistor. Students need to know the structure, the principle and the performance of the devices, and understand the dependence of the device characteristics on the structure, material, and the process. By learning this course, students learn the device analysis basic method, the basic idea of the device principle, exercise and improve the device analysis and design ability.

编 码: EI05032**Code:** EI05032**课程名称:** 微电子工艺及其实验**Course Title:** Microelectronic Processes and Experiments**课程类别:** 专业核心**Course category:** Required Core Course**学 分:** 3**Credit(s):** 3**开课单位:** 物理与微电子科学学院**Offering College/School:** College of Physics and Microelectronic Science

课程描述: 本课程是电子科学与技术专业的专业核心课程,以微电子概论、半导体物理、微电子器件为前导课程,为集成电路设计与应用方面的课程学习提供知识支持。

本课程主要包括超净间、沾污控制、光刻、薄膜沉积、刻蚀、金属化和化学机械掩膜等知识,学生需了解最新的半导体制造工艺,理解微电子制造过程中的工艺问题对集成电路性能的影响,掌握微电子制造基本流程。通过学习本课程,学生学会制作一块集成电路芯片的主要工艺,获得前沿的半导体制造基本知识,锻炼和提升超净间的动手能力。

Course description: This course is one of the most important specialized courses for undergraduate students who are major in Electronic Science and Technology. Before taking this course, the students should have the backgrounds of Microelectronics Basics, Semiconductor Physics and Microelectronic Devices. The course will provide the knowledge for students further to learn design and applications of microelectronics.

The main contents of this course include clean room knowledge, contaminations control, photolithography, film deposition, etching, metallization and chemical mechanical polishing. The students should learn the cutting-edge semiconductor manufacturing processes, understand how microelectronic processes affect the performance of integrated circuits and know the basic microelectronic processes experimentally. After taking this course, students should understand how to make a chip.

编 码: EI05033

Code:EI05033

课程名称: 现代通信光电子学

Course Title:Modern Communication Optical Electronics

课程类别: 专业核心

Course category:Required Core Course

学 分: 3

Credit(s):3

开课单位: 物理与微电子科学学院

Offering College/School:College of Physics and Microelectronic Science

课程描述: 光电子学为电子科学与技术专业本科生的专业核心课程, 其预修课程有普通物理、电动力学、固体物理等。本课程的目的在于使学生了解光电子学的概念, 熟悉光电子学的基础知识以及实际应用。

Course description: Optoelectronics is the core curriculum of Electronic Science and Technology for the professional undergraduate. Its preparatory courses are ordinary physics, electrodynamics, and solid state physics et al. The purpose of this course is to enable students to understand the concept of photonics and optoelectronics, familiar with the basics, as well as practical applications.

编 码: EI05034	Code: EI05034
课程名称: 半导体集成电路	Course Title: Semiconductor Integrated Circuit
课程类别: 专业核心	Course category: Required Core Course
学 分: 4	Credit(s): 4
开课单位: 物理与微电子科学学院	Offering College/School: College of Physics and Microelectronic Science

课程描述: 本课程是电子科学与技术专业的专业核心课程, 以《半导体物理》《电子器件》《半导体工艺原理》等为前导课程, 为集成电路设计方面的课程提供理论基础。课程内容包括了双极型逻辑集成电路原理与设计、MOS 逻辑集成电路基本单元原理与设计、模拟集成电路原理与设计等部分。学生需要了解双极型集成电路、MOS 集成电路的典型制造工艺流程和集成电路中晶体管的结构、形成过程、特性及其寄生效应, 进一步理解器件、工艺原理、集成电路的电路结构特点、版图设计规则、现代电子技术设计理念等知识, 掌握逻辑集成电路以及模拟集成电路的各种基本单元设计思想、电路结构、分析方法、性能特点, 并能灵活运用用于实际的功能模块或专用集成电路的设计。通过本课程的学习建立电子工程设计的基本理念, 在电路分析与设计方面的能力获得实质性的提升, 初步具备集成电路的分析及设计能力。

Course description: This course is a professional core course of Electronic Science and Technology, which is based on Semiconductor Physics, Electronic Device, and Semiconductor Process. This course also serves as the basis and theory support for the Design of Integrated Circuit course. This course mainly includes the contents of the principle and design of bipolar junction transistor (BJT) logic integrated circuit, metal-oxide-semiconductor field-effect-transistor (MOSFET) unit circuit, and analog integrated circuit. Students need to know the typical process flow and the parasitic effect of the BJT and MOSFET integrated circuit, and to understand the layout design rule and modern design idea. By learning this course, students learn basic idea of the circuit principle and the circuit analysis basic method, exercise and improve the circuit analysis and design ability.

编 码: EI05035	Code: EI05035
课程名称: 电子科学与技术 专业高级研讨课	Course Title: Advanced Seminar for Electronic Science and Technology
课程类别: 专业核心	Course category: Required Core Course
学 分: 1	Credit(s): 1
开课单位: 物理与微电子科学学院	Offering College/School: College of Physics and Microelectronic Science

课程描述: 本课程是电子科学与技术专业的专业核心课程,以电子科学与技术专业 2015 版培养计划中的学门和学类核心课为先导课程,为本专业本科生就业、读研以及科研能力培养等提高研讨平台。

本课程包括专业发展简史、专业领域内重要的前沿方向、就业指导和考研指导等内容,学生需了解电科专业领域的历史由来、专业领域的研究热点、国家队信息产业的政策支持,与专业领域对口的国际和国内主要公司企业的情况、专业前沿领域未来的发展等,并能调研或跟踪电子科学与技术专业的各个学科领域的研究现状及发展趋势,培养学生阅读本专业前沿学术论文、发现科学问题、寻找解决科学问题的方法和手段的科学思维能力和科学研究能力。

Course description: This course is the professional core one of Electronic Science and technology, which leading courses are the core courses in 2015 version training plan of Electronic Science and technology specialty, and it will provide the discussion platform for the employment of the undergraduate, taking part in the entrance exams for graduate schools and cultivating scientific research ability.

This course includes a brief history of professional development, some important research directions in the field, employment guidance and graduate exam guidance etc. Students need to understand the origin of the Electronic Science and technology field, research hotspots in the field, national supporting policy for the information industry, and international and domestic main companies situation in the field and the future development in the field of professional frontier, and to follow the current situation and development trend of each subject field of Electronic Science and technology specialty, to cultivate students for reading the professional academic papers, to find the scientific problems, to find a solution to scientific problems and means of scientific thinking ability and scientific research ability.

编 码: GE03005	Code:GE03005
课程名称: 普通物理 A(1)	Course Title:General Physics A (1)
课程类别: 学门核心	Course category:Introductory Major Course
学 分: 3	Credit(s):3
开课单位: 物理与微电子科学学院	Offering College/School:College of Physics and Microelectronic Science

课程描述: 本课程是理工科各专业的一门重要必修基础课。本课程包括力学与相对论, 振动、波动与光学, 热学。本课程包括力学与相对论, 振动、波动与光学, 热学。通过普通物理课程的学习, 使学生熟悉自然界物质的结构、性质、相互作用及其运动的基本规律, 为后继专业基础课与专业课程的学习及进一步获取有关知识奠定必要的物理基础。

Course description: College Physics A (1) is a compulsory course for students of science and engineering. The purposes of this course are to enable students to familiarize structures, interaction and properties of objects in nature and its basic laws of movement, master methods of physical research, form world outlook and methodology of dialectical materialism, improve their abilities to set up physical models, qualitative analyses, estimating, quantitative computation and independently obtaining knowledge, and thus lay a solid foundation for further study. The contents of the course cover particle kinematics, mechanical quantity conservation of particle system, wave optics (interference, diffraction, and polarization), kinetic theory of gases, and macroscopic thermodynamic basis.

编 码: GE03005(06)	Code:GE03005(06)
课程名称: 普通物理 A	Course Title:General Physics A
课程类别: 学门核心	Course category:Introductory Major Course
学 分: 6	Credit(s):6
开课单位: 物理与微电子科学学院	Offering College/School:College of Physics and Microelectronic Science

课程描述: A (1): 本课程是理工科各专业的一门重要必修基础课。本课程包括力学与相对论, 振动、波动与光学, 热学。本课程包括力学与相对论, 振动、波动与光学, 热学。通过普通物理课程的学习, 使学生熟悉自然界物质的结构、性质、相互作用及其运动的基本规律, 为后继专业基础课与专业课程的学习及进一步获取有关知识奠定必要的物理基础。

A (2): 本课程是理工科各专业的一门重要必修基础课。本课程包括电磁学, 量子物理学。通过本课程的学习, 使学生逐步掌握物理学研究问题的思路和方法, 在获取知识的同时, 学生建立物理模型的能力、定性分析、估算与定量计算的能力, 独立获取知识的能力, 理论联系实际的能力获得同步提高与发展。开阔思路, 激发探索和创新精神, 增强适应能力, 提升其科学技术的整体素养。

Course description: College Physics A (1) is a compulsory course for students of science and engineering. The purposes of this course are to enable students to familiarize structures, interaction and properties of objects in nature and its basic laws of movement, master methods of physical research, form world outlook and methodology of dialectical materialism, improve their abilities to set up physical models, qualitative analyses, estimating, quantitative computation and independently obtaining knowledge, and thus lay a solid foundation for further study. The contents of the course cover particle kinematics, mechanical quantity conservation of particle system, wave optics (interference, diffraction, and polarization), kinetic theory of gases, and macroscopic thermodynamic basis.

College Physics A (2) is a compulsory course for students of science and engineering. The purposes of this course are to enable students to familiarize structures, interaction and property of objects in nature and its basic laws of movement, master methods of physical research, form world outlook and methodology of dialectical materialism, improve their abilities to set up physical models, qualitative analyses, estimating, quantitative computation and independently obtaining knowledge, and thus lay a solid foundation for further studies. The contents of the course cover electrostatic field in the vacuum, electrostatic induction and polarization of medium, static magnetic fields, magnetization of media, electromagnetic induction and electromagnetic field, plastic mechanics of special relativity, and basics of quantum physics.

编 码: GE03006	Code:GE03006
课程名称: 普通物理 A(2)	Course Title:General Physics A (2)
课程类别: 学门核心	Course category:Introductory Major Course
学 分: 3	Credit(s):3
开课单位: 物理与微电子科 学学院	Offering College/School:College of Physics and Microelectronic Science

课程描述: 本课程是理工科各专业的一门重要必修基础课。本课程包括电磁学, 量子物理学。通过本课程的学习, 使学生逐步掌握物理学研究问题的思路和方法, 在获取知识的同时, 学生建立物理模型的能力、定性分析、估算与定量计算的能力, 独立获取知识的能力, 理论联系实际的能力获得同步提高与发展。开阔思路, 激发探索和创新精神, 增强适应能力, 提升其科学技术的整体素养。

Course description: College Physics A (2) is a compulsory course for students of science and engineering. The purposes of this course are to enable students to familiarize structures, interaction and property of objects in nature and its basic laws of movement, master methods of physical research, form world outlook and methodology of dialectical materialism, improve their abilities to set up physical models, qualitative analyses, estimating, quantitative computation and independently obtaining knowledge, and thus lay a solid foundation for further studies. The contents of the course cover electrostatic field in the vacuum, electrostatic induction and polarization of medium, static magnetic fields, magnetization of media, electromagnetic induction and electromagnetic field, plastic mechanics of special relativity, and basics of quantum physics.

编 码: GE03007	Code: GE03007
课程名称: 普通物理实验 A(1)	Course Title: College Physics Experiment A(1)
课程类别: 学门核心	Course category: Introductory Major Course
学 分: 1	Credit(s): 1
开课单位: 物理与微电子科学学院	Offering College/School: College of Physics and Microelectronic Science

课程描述: 《普通物理实验 A(1)》是理工科各专业本科生的学门核心课程，是本科生入校之后开设的第一门基础实验课程。本课程与《普通物理 A(1)》课程并行开设，为理工科各专业学生所有后续实验课程提供基础训练。本课程主要包括的内容为：物理量的测量、物理规律的分析研究、基本测量仪器的使用、数据处理和误差分析等。通过实验方法和实验技能的基本训练，学生需要掌握物理实验基本知识和基本实验方法，并加深对物理原理的理解。本课程的目的是培养与提高学生的科学实验基本能力和素养，包括自学能力、动手能力、分析能力、表达能力、初步设计能力以及分析和解决实际问题的能力。

Course description: "College Physics Experiment A(1)" is the science and engineering students into the school after first opening Gates Foundation courses, is a professional science and engineering discipline basic course is the basic training of students of scientific experimental methods and skills, cultivate and improve students scientific experiments and practical literacy curriculum analysis and the ability to solve practical problems. Specific tasks of this course is: To observe the experimental phenomena, analysis and measurement of physical quantities, so that students learn knowledge and basic physics experiment experimental methods, and deepen understanding of the physical principles; training and improving students' ability of scientific experiments, including learning ability, ability, analytical ability, skills, preliminary design capacity; training and improve their scientific literacy test.

编 码: GE03007(08)	Code:GE03007(08)
课程名称: 普通物理实验 A	Course Title:Physical Experiments A
课程类别: 学门核心	Course category:Introductory Major Course
学 分: 2	Credit(s):2
开课单位: 物理与微电子科 学学院	Offering College/School:College of Physics and Microelectronic Science

课程描述: 《普通物理实验 A(1)》是理工科各专业本科生的学门核心课程,是本科生入校之后开设的第一门基础实验课程。本课程与《普通物理 A(1)》课程并行开设,为理工科各专业学生所有后续实验课程提供基础训练。本课程主要包括的内容为:物理量的测量、物理规律的分析、基本测量仪器的使用、数据处理和误差分析等。通过实验方法和实验技能的基本训练,学生需要掌握物理实验基本知识和基本实验方法,并加深对物理原理的理解。本课程的目的是培养与提高学生的科学实验基本能力和素养,包括自学能力、动手能力、分析能力、表达能力、初步设计能力以及分析和解决实际问题的能力。

《普通物理实验 A(2)》是理工科各专业本科生的学门核心课程,是《普通物理实验 A(1)》的后续课程。本课程与《普通物理 A(1)》、《普通物理 A(2)》课程并行开设,为理工科各专业学生所有后续实验课程提供基础训练。本课程主要包括的内容为:物理量的测量、物理规律的分析、基本测量仪器的使用、实验方法的设计和研究、数据处理和误差分析等。通过实验方法和实验技能的进一步训练,学生需要掌握物理实验的基本原理,并初步了解实验方案的设计和实现。本课程的目的是培养与提高学生的科学实验基本能力和素养,包括自学能力、动手能力、分析能力、表达能力、初步设计能力以及分析和解决实际问题的能力。

Course description: "College Physics Experiment A(1)" is the science and engineering students into the school after first opening Gates Foundation courses, is a professional science and engineering discipline basic course is the basic training of students of scientific experimental methods and skills, cultivate and improve students scientific experiments and practical literacy curriculum analysis and the ability to solve practical problems. Specific tasks of this course is: To observe the experimental phenomena, analysis and measurement of physical quantities, so that students learn knowledge and basic physics experiment experimental methods, and deepen understanding of the physical principles; training and improving students' ability of scientific experiments, including learning ability, ability, analytical ability, skills, preliminary design capacity; training and improve their scientific literacy test.

"College Physics Experiment A(2)" is the science and engineering students into the school after first opening Gates Foundation courses, is a professional science and engineering discipline basic course is the basic training of students of scientific experimental methods and skills, cultivate and improve students scientific experiments and practical literacy curriculum analysis and the ability to solve practical problems. Specific tasks of this course is: To observe the experimental phenomena, analysis and measurement of physical quantities, so that students learn knowledge and basic physics experiment experimental methods, and deepen understanding of the physical principles; training and improving students' ability of scientific experiments, including learning ability, ability, analytical ability, skills, preliminary design capacity; training and improve their scientific literacy test.

编 码: GE03008	Code: GE03008
课程名称: 普通物理实验 A(2)	Course Title: Physical Experiments A (2)
课程类别: 学门核心	Course category: Introductory Major Course
学 分: 1	Credit(s): 1
开课单位: 物理与微电子科学学院	Offering College/School: College of Physics and Microelectronic Science

课程描述: 《普通物理实验 A(2)》是理工科各专业本科生的学门核心课程,是《普通物理实验 A(1)》的后续课程。本课程与《普通物理 A(1)》、《普通物理 A(2)》课程并行开设,为理工科各专业学生所有后续实验课程提供基础训练。本课程主要包括的内容为:物理量的测量、物理规律的分析研究、基本测量仪器的使用、实验方法的设计和研究、数据处理和误差分析等。通过实验方法和实验技能的进一步训练,学生需要掌握物理实验的基本原理,并初步了解实验方案的设计和实现。本课程的目的是培养与提高学生的科学实验基本能力和素养,包括自学能力、动手能力、分析能力、表达能力、初步设计能力以及分析和解决实际问题的能力。

Course description: "College Physics Experiment A(2)" is the science and engineering students into the school after first opening Gates Foundation courses, is a professional science and engineering discipline basic course is the basic training of students of scientific experimental methods and skills, cultivate and improve students scientific experiments and practical literacy curriculum analysis and the ability to solve practical problems. Specific tasks of this course is: To observe the experimental phenomena, analysis and measurement of physical quantities, so that students learn knowledge and basic physics experiment experimental methods, and deepen understanding of the physical principles; training and improving students' ability of scientific experiments, including learning ability, ability, analytical ability, skills, preliminary design capacity; training and improve their scientific literacy test.

编 码: GE03009	Code: GE03009
课程名称: 普通物理 B	Course Title: General Physics B
课程类别: 学门核心	Course category: Introductory Major Course
学 分: 4	Credit(s): 4
开课单位: 物理与微电子科学学院	Offering College/School: College of Physics and Microelectronic Science

课程描述: 本课程是生物技术专业的学门核心课,以高等数学为前导课程,为生物科学和生物技术方面的课程学习打下物理学基础。

本课程主要包括力学、振动和波、光学、热学和电磁学五部分内容。学生需要了解机械运动的规律,包括质点和刚体的运动学和动力学,理解牛顿定律,掌握处理力学问题的方法。了解振动和波是一种普遍的运动形式。理解振动的运动学和动力学规律,掌握振动的合成和分解,波的形成和传播规律,以及波的干涉和衍射。了解光的干涉、衍射和偏振。理解若干典型的实验,如双缝干涉、薄膜干涉、单缝衍射、光栅衍射等。了解宏观上物质状态变化时,热、功、内能等宏观量变换规律。了解从物质的微观结构出发,用统计方法分析大量分子热运动的规律,确定宏观量与微观量的联系。了解静电场和稳恒磁场的基本实验定律,理解电介质和磁介质的微观结构,掌握有介质存在时的电磁学规律和麦克斯韦方程组。

在学习基本概念和定律的基础上,要求学生能灵活运用微积分和矢量代数处理相关物理问题。通过学习本课程,学生须系统地获取经典物理学的基本原理和基础知识,经过解决物理问题的基本训练,锻炼和提升提出、分析和解决物理问题的能力。

Course description: This course is a core one of the biotechnology major. It takes the higher mathematics as the pre-requisite course and lays a foundation in physics for other courses of biological science and biological technology.

This course mainly includes mechanics, vibration and wave, optics, thermal physics and electromagnetism. The students need to understand the rules of mechanical motion, including the kinematics and dynamics of particle and rigid body, etc. Meanwhile, they should understand the Newton's law and master the methods of dealing with mechanical problems. They should know that the vibration and wave is a common form of motion and understand the kinematics and dynamics of vibration. At the same time, they should master the synthesis and decomposition of vibration, the formation and propagation law of wave, and the interference and diffraction of the wave. They should know the interference, diffraction and polarization of light and learn some typical experiments, such as double-slit interference, thin films, single-slit diffraction grating diffraction, etc. They should know the transformation law of the macroscopic quantities such as heat, work, and internal energy with the macro material status changing. Also, they should learn to use statistical methods to analyze the law of thermal motion of large molecular and determine the relation between macro and micro quantities after figuring out the microstructure of materials. They should know the basic laws of experiment of the electrostatic field and steady magnetic field. In addition, they should understand the microscopic structure of the dielectric and magnetic media, and master electromagnetism laws in the presence of media and Maxwell's equations.

On the basis of studying the concepts and laws, students can apply calculus and vector algebra on the relevant physical questions. By learning this course, students are required to systematically to obtain the basic principle and knowledge of classical physics. After the basic training, they can solve the problem of physical exercise and develop the ability in putting forward, analyzing and solving the physical problems.

编 码: GE03041	Code: GE03041
课程名称: 普通物理学(1)	Course Title: General Physics I
课程类别: 学门核心	Course category: Introductory Major Course
学 分: 3	Credit(s): 3
开课单位: 物理与微电子科学学院	Offering College/School: College of Physics and Microelectronic Science

课程描述: 《普通物理 I》课程包括力学和热学两部分。

力学是一门古老的物理学科，也是经典物理中第一个形成完整理论体系的学科。这一部分主要研究机械运动的规律，包括质点的运动学、动力学和平衡问题，刚体的运动学和动力学，振动和波动等。

热学是研究热现象及其规律的基础学科。热学起源于人们对冷热现象的探索，它有两种不同描述方法——热力学和统计物理学。热力学用能量转化观点，从宏观上研究物质状态变化时，热、功、内能等宏观量变换规律。统计物理学从物质的微观结构出发，用统计方法分析大量气体分子的热运动的规律，确定宏观量与微观量的联系，并对气体的某些性质给予微观本质说明。

普通物理 I 作为物理类本科生接触的第一个专业基础学科，其研究内容和方法也为其他物理课程的学习奠定了基础。通过本课程的教学，使学生系统的掌握物理学的基本原理和基本知识，培养学生分析问题，解决问题的能力。

Course description: General Physics I includes mechanics and thermal physics.

Mechanics is an ancient discipline of physics, and firstly developed into a complete theory among the classical physics. It is mainly on the mechanical motion, such as kinematics, dynamics and statics of particle, kinematics and dynamics of rigid body, oscillation and wave.

Thermal physics is the basic subject to study the hot phenomenon and its law. Thermal physics originates from the exploration on the phenomenon of hot and cold. It includes two different description methods, i.e., thermodynamics and statistical physics. On the basis of the point of view of energy transformation, thermodynamic gives the laws of transformation of macroscopic quantities such as heat, work, and internal energy. Statistical physics determines the relationship between macro and micro amount, and give the microscopic nature of some properties of gas by using statistical methods to analyze the law of the thermal motion of gas molecules according to the microstructure of the material.

As the first specialized fundamental course for undergraduates majoring in physics, the contents and methods in General Physics I lay the foundation for studying other physics courses.

编 码: GE03042	Code:GE03042
课程名称: 普通物理学(2)	Course Title:General Physics II
课程类别: 学门核心	Course category:Introductory Major Course
学 分: 4	Credit(s):4
开课单位: 物理与微电子科 学学院	Offering College/School:College of Physics and Microelectronic Science

课程描述: 普通物理是物理与微电子专业的一门重要必修基础课。通过大学物理课程的学习,使学生掌握物理学的基本原理和方法,熟悉自然界物质的结构、性质、相互作用及其运动的基本规律,为后续专业基础课与专业课程的学习及进一步获取有关知识奠定必要的物理基础。通过本课程的学习,学生在获取知识的同时,逐步掌握物理学研究问题的思路和方法;其建立物理模型的能力、定性分析与估算、定量计算的能力,独立获取知识的能力,理论联系实际的能力获得同步提高与发展;科学技术的整体素养得以提升。本课程的主要内容有真空中的静电场,导体的静电感应与介质的极化,稳恒电流,稳恒磁场,介质的磁化,电磁感应与电磁场;原子的结构,原子能级与辐射,碱金属原子与电子自旋,磁场中的原子,X 射线。

Course description: General physics is an important fundamental course for the students whose major is physics and microelectronics. Through the study of this course, students should grasp the basic principles and the methods of physics, have deep insights into structures, properties, interactions, and motions of the material world, and lay a solid foundation for further studies of related follow-up courses. This course aims at not only the physical laws and principles but also the materialistic philosophy of mastering the real world. Through the course, students acquire the ability to model and then qualitatively analyze and qualitatively calculate the real world on the basis of the scientific literacy. Included but not limited to in the course are electrostatics in free space, electrostatic induction of conductors and polarization of insulators, steady electric current and magnetic field, material magnetization, electromagnetic induction, and electromagnetic field; the structure of atom, atomic energy levels and radiation, alkali metal atoms and electron spin, atoms in an external magnetic field, X-ray.

编 码: MA03012	Code: MA03012
课程名称: 普通物理(1)	Course Title: College Physics (1)
课程类别: 学门核心	Course category: Introductory Major Course
学 分: 4	Credit(s): 4
开课单位: 物理与微电子科学学院	Offering College/School: College of Physics and Microelectronic Science

课程描述: 本课程是应用物理专业的学门核心课程,以高等数学为前导课程,为《普通物理 II》、理论力学、电动力学、统计力学、量子力学、固体物理等课程的学习奠定基础。

本课程包括力学和热学两部分,其中力学部分包括质点和刚体的运动学和动力学、振动和波动等内容;热学部分包括热力学系统平衡态、物态方程、温度与温度计、物质的微观模型、分子动理学理论的平衡态理论、热力学第一定律、热力学第二定律与熵等内容。

通过学习本课程,学生须学会处理物理学问题的基本思路和方法,获得力学和热学的一些基础知识,经过解决物理问题的基本训练,锻炼和提升提出、分析和解决物理问题的能力,为其他物理课程的学习奠定基础。

Course description: This course is a core one of the applied physics major. It takes the higher mathematics as the pre-requisite course and lays a foundation for general physics II, Theoretical mechanics, electrodynamics, statistical mechanics, quantum mechanics, and solid-state physics.

This course includes mechanics and thermal physics. The part of mechanics includes the kinematics and dynamics of particle and rigid body, and vibration and wave. The part of thermal physics includes the equilibrium state of thermodynamic system, the equation of state, the temperature and thermometer, the microscopic model of material, equilibrium theory of molecular kinetics theory, the first law of thermodynamics, the second law of thermodynamics and entropy.

During studying this course, the students are required to deal with the relevant physical questions by applying calculus and vector algebra. By learning this course, the students should learn the basic ideas and methods in handling physics problems, and obtain the basic knowledge of mechanics and thermal physics. After the basic training on the problem of physical exercise, they can develop the ability in putting forward, analyzing and solving the physical problems and lays a foundation for other physics courses.

编 码: MA03013	Code:MA03013
课程名称: 普通物理(2)	Course Title:College Physics (2)
课程类别: 学门核心	Course category:Introductory Major Course
学 分: 4	Credit(s):4
开课单位: 物理与微电子科学学院	Offering College/School:College of Physics and Microelectronic Science

课程描述: 通过本课程的学习,使学生逐步掌握物理学研究问题的思路和方法,在获取知识的同时,学生建立物理模型的能力、定性分析、估算与定量计算的能力,独立获取知识的能力,理论联系实际的能力获得同步提高与发展。开阔思路,激发探索和创新精神,增强适应能力,提升其科学技术的整体素养。

Course description: College Physics A (2) is a compulsory course for students of science and engineering. The purposes of this course are to enable students to familiarize structures, interaction and property of objects in nature and its basic laws of movement, master methods of physical research, form world outlook and methodology of dialectical materialism, improve their abilities to set up physical models, qualitative analyses, estimating, quantitative computation and independently obtaining knowledge, and thus lay a solid foundation for further studies. The contents of the course cover electrostatic field in the vacuum, electrostatic induction and polarization of medium, static magnetic fields, magnetization of media, electromagnetic induction and electromagnetic field, plastic mechanics of special relativity, and basics of quantum physics.

编 码: PH04001	Code:PH04001
课程名称: 电科与物理专业 导论课	Course Title:Electronic Science and Physics Specialty Introduction
课程类别: 学类核心	Course category:Major Survey Course
学 分: 1	Credit(s):1
开课单位: 物理与微电子科 学学院	Offering College/School:College of Physics and Microelectronic Science

课程描述: 本课程是电子科学与技术（含应用物理学）专业的核心课程。课程较详细地介绍专业的性质、状况、地位、发展历史、培养目标、教学计划、课程设置和本专业包含的知识内容、相关领域及其发展趋势。通过本课程的学习，使学生对本专业有一个较深入的了解，对本专业产生浓厚的兴趣，为后续课程的学习有较好的理论基础和准备。

Course description: This curriculum is the first course which introduces mainly some professional knowledge for the new students of applied physics major. By the curriculum, the student will have a clear understanding of the specification and duty to educate physical talents in university, and why should study physics major. Besides, the task of college physical education, the training target for physical talents, and the role of physics in the 21st century, the major issues of contemporary physics science, the progress of science and technology of China, and the history of physics also be involved in this class. Finally, the professors will tell you the allocation of the professional and discipline in the ministry of education, the training scheme, the core curriculum, the majors and their enrollments, the analysis of the employment situation, and some issues about postgraduate examination, so that you can learn the physics confidently

编 码: PH04001	Code: PH04001
课程名称: 电科与物理专业导论课	Course Title: The introduction of Electronics and Physics
课程类别: 学类核心	Course category: Major Survey Course
学 分: 1	Credit(s): 1
开课单位: 物理与微电子科学学院	Offering College/School: College of Physics and Microelectronic Science

课程描述: 本课程是电子科学与技术专业的专业核心课程, 为电子科学与技术专业课程学习提供理论认识。

本课程主要包括对专业性质、状况、地位、发展历史、培养目标、教学计划及课程设置的介绍和对专业知识内容、相关领域及其发展趋势的简述, 学生需了解电科专业的理论前沿、应用前景和最新发展动态, 以及电子信息产业发展状况, 理解电科技术应用的重要性, 掌握电科技术学习方法。通过学习本课程, 学生培养独立思考问题和解决问题的能力、实践创新能力及个性发挥能力。

Course description: This course is the professional core one of Electronic Science and technology, which serves as the basis and theory support for the learning of Electronic Science and technology.

This course mainly includes the introduction of the nature, the status, the position, the history development, the training objective, the teaching plan and curriculum of the profession, and the sketch of specialized knowledge content, related fields and the development trend. Students need to know the professional theory, application prospect and the latest development trends, as well as the development status of the electronic information industry, understand the importance of electrical science and technology application, and grasp the learning method of electrical science and technology. By learning this course, students develop the ability of thinking independently and problem solving skills, the practice innovative capability and personality play ability.

编 码: PH04002	Code:PH04002
课程名称: 数学物理方法	Course Title:Methods of mathematical Physics
课程类别: 学类核心	Course category:Major Survey Course
学 分: 3	Credit(s):3
开课单位: 物理与微电子科 学学院	Offering College/School:College of Physics and Microelectronic Science

课程描述: 本课程是物理学和电子科学与技术专业的专业核心课, 以高等数学和普通物理学为前导课程, 为量子力学、电动力学等后续理论物理课程的学习提供基础。

本课程主要包括复变函数与解析函数、复变函数积分、幂级数展开、留数定理、傅里叶变换、拉普拉斯变换、数学物理定解问题、分离变数法、球函数、柱函数、积分变换法等内容, 学生需要了解数学物理方法课程的理论体系、内容、方法及其在专业学习中的地位和作用, 理解用数学物理方法处理实际问题的一般方法, 掌握复变函数和数学物理方程两方面的基本概念、基本理论和基本操作技能, 并能灵活利用数学物理方法的理论和方法解决实际问题。通过学习本课程, 学生学会了利用数学物理方法的理论和方法去解决一些实际问题, 获得了较丰富的解决问题的经验, 锻炼和提升了辩证思维能力、抽象化能力、计算能力和自学能力, 为以后的理论研究和应用研究打下良好的基础。

Course description: This is a professional core course for majors of physics and electronic science and technology. In advanced mathematics and general physics for leading course, it provides a basis for the study of the follow-up theory physics courses, such as Quantum mechanics, Electrodynamics, etc.

This course mainly includes the complex variable functions, analytic functions, integrals, series, theory of residues, Fourier Transform, Laplace Transform, the Specific Solutions in the mathematical physics method, the variable-separating method, spherecal harmonics, cylindrical functions, integral transform method, etc. Students not only need to grasp the theory system, content, and method of this course, but also to know the status and role of this course in professional learning. Furthermore, it is necessary for students to understand the general method about handling practical problems, to mastery the basic concepts and theories of complex analysis and physical-mathematical equation, to flexibly utilize it to analysis and solve practical problems. By learning this course, students can use the theory and method of this course to solve problems, and gain rich experience for solving problems. It also develops and improves the dialectical thinking ability, abstract thinking ability, calculating ability, and self-learning ability, thus laying a solid foundation for students engaged in theoretical and applied research in the future.

编 码: PH04003	Code:PH04003
课程名称: 模拟电子技术	Course Title:Analog Electronic Technology
课程类别: 学类核心	Course category:Major Survey Course
学 分: 3	Credit(s):3
开课单位: 物理与微电子科 学学院	Offering College/School:College of Physics and Microelectronic Science

课程描述: 模拟电子技术是电子技术及微电子技术的专业核心课, 以普通物理学、电路和高等数学为前导课程, 为集成电路、电子器件等方面的课程提供基础。

本课程主要包括: 半导体二极管及其应用、晶体管及放大电路基础、场效应管及其放大电路、集成运算放大器、反馈和负反馈放大电路、信号运算电路、信号检测与处理电路、信号发生器、功率放大器、直流稳压电源等内容, 学生需了解半导体二极管、三极管和场效应管的基本特性, 理解三极管放大电路的工作原理, 掌握共集电极放大电路的分析方法, 并能灵活运用运算放大器进行电路设计。

通过本课程的学习, 学生学会模拟电子技术方面的基本理论、基本知识和基本技能, 提升电子电路分析与设计的能力, 为其后续电子课程的学习打下坚实基础。

Course description: Analog Electronic Technology is a professional core curriculum for electronics and microelectronics, which is based on General Physics, Circuit Analysis and Higher Mathematics, and lays the foundations for Integrated Circuit , Electronic Device.

The main contents include semiconductor diode and its application, bipolar transistor and amplifier circuit, field effect transistor and amplifier circuit, integrated amplifier, feed-back and feed-back amplifier, signal operation circuit, signal detection and processing circuit, signal generation, power amplifier, direct-current regulator, and so on. It is necessary to know about the basic characters of diode, transistor and MOS, to understand the theory of amplifier circuit, to master the analysis method of comm-emitter circuit, and to design the amplifier circuit with operational amplifier.

The students can know about the basic theory, knowledge and skills about Analog Electronic Technology, promote the analysis and design ability on electronic circuit, and lays the foundations for further study on electronic circuit course.

编 码: PH04004	Code: PH04004
课程名称: 数字电子技术	Course Title: Digital Electronic Technology
课程类别: 学类核心	Course category: Major Survey Course
学 分: 3	Credit(s): 3
开课单位: 物理与微电子科学学院	Offering College/School: College of Physics and Microelectronic Science

课程描述: 本课程是电子科学与技术专业的专业核心课程，以电路为前导课程，为集成电路设计及 VLSI 等方面课程学习提供必要的专业基础知识。

本课程主要包括数字逻辑概论、逻辑代数与硬件描述语言、逻辑门电路、组合逻辑电路、锁存器和触发器、时序逻辑电路、存储器，复杂可编程逻辑器件和现场可编程门阵列、脉冲波形的产生和变化和数模模数转换等内容。学生需了解硬件描述语言，理解数字电路中相关概念，掌握数字电路分析与设计方法，并能灵活运用所学知识解决有关实际问题。通过学习本课程，学生学会有关数字电路的专业理论知识，获得分析设计数字逻辑电路的基本技能，锻炼和提升实际动手能力、综合分析问题与解决问题的能力。

Course description: This course is a professional core course of Electric Science and Technology, which needs the circuit as the prerequisite courses. It provides the necessary professional knowledge for integrated circuit design and VLSI, etc courses.

The course mainly includes the following topics: the Introduction to Digital Logic, Logical Algebra and Hardware Description Language, Logic Gates, Combinational Logic Circuits, Latches and Flip-Flops, Sequential Logic Circuits, Memories, Complex Programmable Logic Devices and Field Programmable Gate Arrays, the Generation and Change of Pulse Waveform, A/D and D/A Conversion, etc. The student who take this course need to know about the Hardware Description Language, understand the related concepts of Digital Circuits, master analysis and design methods of Digital Circuits and then use these knowledge flexibly to solve the relevant practical problems. By learning this course, student will learn about the professional theoretical knowledge of Digital Circuits and acquire the basic skills of analysis and design of digital logic circuits. Besides, it will also exercise student's practical ability, and improve their skills of comprehensive problem analysis and problem-solving.

编 码: PH04006	Code:PH04006
课程名称: 电动力学	Course Title:Electrodynamics
课程类别: 学类核心	Course category:Major Survey Course
学 分: 3	Credit(s):3
开课单位: 物理与微电子科学学院	Offering College/School:College of Physics and Microelectronic Science

课程描述: 《电动力学》课程是高等院校应用物理学本科专业必修的一门核心课程, 它以电磁学、高等数学和数学物理方程为前导课程, 为后续专业物理方面的课程学习提供基础。本课程主要包括静电场和静磁场的普遍规律、电磁波的传播与辐射、电磁场与物质的相互作用, 以及狭义相对论的基本原理和时空理论等内容。通过本课程的学习, 使学生了解经典电磁场的基本原理和理论体系, 理解电磁场所遵循的普遍规律, 掌握麦克斯韦方程组及其实际应用, 并能灵活运用所学知识解决实际问题等。学生可学会用"场"的观点去观察和分析问题, 获得解决电磁场具体问题的能力, 锻炼和提升其理论联系实际应用的能力。

Course description: Electrodynamics is one of the most important basic physics courses for the undergraduates in university. This course will discuss the universal laws of electromagnetic phenomena for the electrostatic field, static magnetic field, the propagation and radiation of electromagnetic waves, as well as the basic principle and space-time theory of the special theory of relativity. Through this course, students can master the basic characteristics of the electromagnetic field, understand the dialectical relationship between classical physics and relativity physics, deepen the understanding of the nature of electromagnetic fields, obtain the correct concept of time and space, and get the ability to analyze the basic problems relevant to the areas of this course, and lay the necessary foundation for learning subsequent courses and engaged in research work.

编 码: PH04007	Code: PH04007
课程名称: 热力学与统计物理(双语)	Course Title: Thermodynamics and statistical physics (English and Chinese)
课程类别: 学类核心	Course category: Major Survey Course
学 分: 3	Credit(s): 3
开课单位: 物理与微电子科学学院	Offering College/School: College of Physics and Microelectronic Science

课程描述: 热力学和统计物理分别从宏、微观性质入手, 利用全部可能的研究范式, 研究物质的热性质。以普通物理等课程为先导, 为固体物理等课程做准备, 为研究不可逆过程、非平衡态物质的热性质打基础。

本课程研究平衡态物质在可逆过程中的热性质。主要内容包括热力学过程、热力学函数、相变; 量子气体、固体、光、声子的热性质, 等等。研究范式包括从特殊到一般、从一般到特殊, 从实到虚、由虚返实等。需要掌握热力学第一、二、三定律, 了解物质各种宏观性质之间的关系及内在的热力学普遍规律; 需要掌握等概率原理、近独立粒子的分布规律、系综理论初步, 掌握联系热力学量与微观量的统计物理方法。

本课程将贯彻研究性讲授和学习, 并力图深达创造之本质。

Course description: Thermodynamics presents the most fundamental and inevitable physics laws of the universe (Einstein), whereas Thermodynamics and statistical physics start respectively from the microscopic and macroscopic properties and utilize all possible research paradigms, to investigate the thermal properties of matter. They bridge the fundamental physics and solid state physics, and offer a base for irreversible and non-equilibrium thermal properties.

This course mainly studies the matter in thermal equilibrium, with changing its states reversibly. It deals with not only the thermal process, thermodynamic functions, phase transition, but also the heat properties of quantum gases, solid, photon and phonon. Research paradigms cover how to start from special to reach the general, and vice versa, and how to initialize the virtual to end to the real, and vice versa. Students need to master the three thermodynamic laws, to get familiar with various macroscopic relations of matter and internal thermodynamic principles, to command the equal a priori probabilities, and distributions of almost independent particles and elementary ensemble theory, to be able to use the statistical physics way of connection thermodynamic quantities and microscopic ones.

This course will take research oriented teaching and learning, and tries to reveal the essence of the creations.

编 码: PH04008	Code:PH04008
课程名称: 近代物理实验	Course Title:Modern Physics Experiment
课程类别: 学类核心	Course category:Major Survey Course
学 分: 2	Credit(s):2
开课单位: 物理与微电子科学学院	Offering College/School:College of Physics and Microelectronic Science

课程描述: 近代物理实验是继大学物理实验后为应用物理及相关专业学生开设的一门重要的核心课程。为应用物理专业的学生提供更系统深入的物理实验方法和技能的训练。在任选的十七个实验中, 有在近代物理学发展史上堪称里程碑的著名实验, 也有与现代科学技术中常用实验方法或现代技术有关的实验。与普通物理实验相比, 近代物理实验所涉及的知识面更广, 综合性和技术性更强。实验内容涉及到原子物理、量子物理、光纤光学、微波光学、弱信号锁相放大等。通过本课程的学习, 同学们要了解各实验原理, 加深对相关物理概念和规律的理解, 掌握近代物理及现代技术中的一些常用实验方法和实验技能并能灵活运用在物理实验研究中。通过本课程的学习进一步养成规范的实验习惯和严谨的科学作风, 获得独立运用实验方法和技术研究物理问题的能力。

Course description: Modern Physics Experiment is an important core course suitable for applied physics and other relevant major students after University Physics Experiment. The aim is to provide the students with more systematic and intensive training of method and skill in physics experiment. Among the seventeen optional experiments, there are some milestone experiments in the history of modern physics as well as experiments related to common experiment methods or modern technologies in modern science and technology. Compared with University Physics Experiment, this course covers a wider range of knowledge and has a stronger comprehensiveness and technicality. The experiments involve atomic physics, quantum physics, fiber optics, microwave optics, weak signal lock-in amplifier and so on. This course requires students to comprehend the experiment principles, to further understand the related physics concept and law, to grasp the common experiment methods and skills of modern physics, science and technology and to use them freely in the research of physics experiments. The course may help the students to further develop a standardized experimental habits and rigorous scientific style, and to gain the ability of independent utilizing experiment methods and technologies in physics problem research.

编 码: PH04009	Code:PH04009
课程名称: 量子力学	Course Title:Quantum Mechanics
课程类别: 学类核心	Course category:Major Survey Course
学 分: 3	Credit(s):3
开课单位: 物理与微电子科学学院	Offering College/School:College of Physics and Microelectronic Science

课程描述: 本课程是物理学专业和电子科学技术专业的专业核心课程, 以大学物理和高等数学为前导课程, 为固体物理、半导体物理等课程学习提供必备基础。

本课程主要内容为量子力学基本原理和方法, 具体包括: 波函数与薛定谔方程、量子力学中的力学量、态和力学量表象、微扰理论、散射理论、自旋和全同粒子等。通过该课程的学习, 使学生掌握量子力学的基本原理和方法, 为学生学习后续专业课程打下必不可少的基础。另外, 通过该课程的训练, 培养学生分析和解决量子体系中的物理问题的能力, 为以后的理论研究和应用研究打下良好的基础。

Course description: This course is a professional core curriculum of physics and Electronic Science and technology professionals. It's leading courses are college physics and advanced mathematics. This course provides a necessary foundation for learning solid state physics and semiconductor physics.

The main contents of the course are the basic principles and methods of quantum mechanics, including the wave function and Schrödinger equation, the dynamical variable in quantum mechanism, the representation for the states and dynamical variable, perturbation theory, the general theory of scattering, spin and identity of particles, and so on, aiming at the students' mastery of the basic conceptions and theories of quantum mechanics. The training of the course develops the students' ability to analyze and solve physics problems, thus laying a solid foundation for students engaged in theoretical and applied research in the future.

编 码: PH05009	Code: PH05009
课程名称: 分析力学	Course Title: Analytical mechanics
课程类别: 学类核心	Course category: Major Survey Course
学 分: 3	Credit(s): 3
开课单位: 物理与微电子科学学院	Offering College/School: College of Physics and Microelectronic Science

课程描述: 本课程是物理学专业的专业核心课, 以高等数学和普通物理学为前导课程, 为量子力学、热力学与统计物理等后续理论物理课程的学习提供基础。

本课程主要包括牛顿力学、拉格朗日力学和哈密顿力学等内容, 学生需要了解分析力学的理论体系、内容、方法及其在物理学中的地位和作用, 理解处理力学问题的一般方法, 掌握宏观机械运动的基本概念和基本规律, 并能灵活利用牛顿力学、拉格朗日力学和哈密顿力学分析和解决具体的力学问题。通过学习本课程, 学生学会了利用分析力学的理论和方法去解决力学问题, 获得了较丰富的解决力学问题的经验, 锻炼和提升了辩证思维能力、抽象化能力、计算能力和自学能力, 为以后的理论研究和应用研究打下良好的基础。

Course description: This is a professional core course for physics major. In advanced mathematics and general physics for leading course, it provides a basis for the study of the follow-up theory physics courses, such as Quantum mechanics, Thermodynamics and Statistical physics, etc.

This course mainly includes the Newtonian mechanics, Lagrangian mechanics, Hamiltonian mechanics, etc. Students not only need to grasp the theory system, content, and method of Analysis mechanics, but also to know the status and role of Analysis mechanics in physics. Furthermore, it is necessary for students to understand the general method about handling mechanical problems, to mastery the basic concepts and theories of mechanical movement, to flexibly utilize the Newton mechanics, Lagrangian mechanics and Hamiltonian mechanics to analysis and solve the problem of mechanics. By learning this course, students can use the theory and method of Analytical mechanics to solve the problem of mechanics, and gain rich experience for solving the problem of mechanics. It also tranis and improves the dialectical thinking ability, abstract thinking ability, calculating ability, and self-learning ability, thus laying a solid foundation for students engaged in theoretical and applied research in the future.

编 码: PH05018**Code:**PH05018**课程名称:** 光学原理**Course Title:**Principles of Optics**课程类别:** 专业核心**Course category:**Required Core Course**学 分:** 3**Credit(s):**3**开课单位:** 物理与微电子科学学院**Offering College/School:**College of Physics and Microelectronic Science

课程描述: 这是专门为应用物理等专业开设的一门重要必修基础课,通过该课程的教学使学生能够掌握光学的基本概念、基本理论和基本规律,为学生学习相关后续专业课程,如应用光学、激光原理、光电子学等,打下必不可少的基础;通过光学的整个教学过程逐渐培养学生分析问题、解决问题的能力,建立光学物理模型的能力、定性分析与定量计算的能力,独立获取知识的能力,理论联系实际的能力,提升其科学技术的整体素养;主要内容为光学的基本原理及研究有关问题的思路和方法,具体包括:光的干涉,光的衍射,光的偏振,几何光学和量子光学等。

Course description: This is a basic course for important majors of applied physics, aiming at the students' mastery of the basic concepts, theories and rules of optics, thus laying a solid foundation for their study of follow-up courses such as applied optics, principles of Laser, and optoelectronics. The study of this course develops the students' ability to analyze and solve practical problems, build optics physical model, analyze qualitatively and calculate quantitatively, get knowledge independently, and combine theory and practice together. The main contents of this course are the basic approaches and principles of optics, including interference of light, diffraction of light, polarization of light, geometrical optics, and quantum optics.

编 码: PH05019**Code:**PH05019**课程名称:** 激光原理与应用(全英文)**Course Title:** Principle and Application of Laser (in English)**课程类别:** 专业核心**Course category:** Required Core Course**学 分:** 3**Credit(s):** 3**开课单位:** 物理与微电子科
学学院**Offering College/School:** College of Physics and
Microelectronic Science

课程描述: “激光原理与应用”是高等院校光电子和有关专业的一门极其重要的专业基础课程。本课程是一门理论性较强的课程,主要阐述激光器的基本原理和理论。本课程的重点,是要掌握激光器的基本原理、光谐振腔理论和激光振荡理论。它是学习相关课程“激光器件”、“激光技术”、“激光应用”的基础,也是学习光电子学、激光化学、激光生物学、激光光谱学、非线性光学等新的交叉学科的重要基础。

Course description: ‘Laser principle and application’ is one of the most important professional foundation courses of the photoelectron and relevant major. This course is strong in theory, mainly elaborates the basic principle of laser and theories. The focus of this course is to master the basic principles of laser, optical resonator theory and laser oscillation theory. It is the basis course to learn further in the course "laser device" and "laser technology", "laser application", and is also the important foundation of a new interdisciplinary of some research area, such as optoelectronics, laser chemistry, biology, laser spectroscopy, nonlinear optics and so on.

编 码: PH05020**Code:**PH05020**课程名称:** 光电子学基础**Course Title:** Optoelectronics Foundation**课程类别:** 专业核心**Course category:** Required Core Course**学 分:** 3**Credit(s):**3**开课单位:** 物理与微电子科学学院**Offering College/School:** College of Physics and Microelectronic Science

课程描述: 本课程是为应用物理学专业本科生开设的专业核心课程,以光学原理、量子力学、固体物理等课程为先导,通过该课程的教学使学生能够掌握光电子学的基本概念、基本原理和基础理论,为学生学习相关后续专业课程,如光通讯原理、光电图像处理、光电显示原理与技术、光电探测技术等,打下必不可少的基础;通过光电子学基础的整个教学过程逐渐培养学生分析问题、概括问题和解决问题的能力,培养学生熟悉与信息传递相关的原理及相关器件,如光与物质相互作用、激光振荡与工作特性、光辐射在介质波导中的传播、光波调制、光辐射的探测、光通信无源器件等,对光电子学领域中的相关问题能予以理解和利用。

Course description: This is a basic course for postgraduates of physics, aiming at the students' mastery of the basic concepts and theories of optoelectronics, thus laying a solid foundation for their study of follow-up courses such as Optical Information Processing, Optical Image Manipulation, Photoelectron Communication and Device, Optical Fiber Communication. The study of this course develops the students' ability to analyze, generalize and solve problems. This course also trains students to get the groundwork and ability of optic transmission, optic detecting, luminescent devices, photo-electric transfer devices, and to understand and use the optoelectronic technology.

编 码: PH05021	Code: PH05021
课程名称: 物理学与光电子学前沿讲座	Course Title: Physics and Optoelectronics Cutting Edge Lectures
课程类别: 专业核心	Course category: Required Core Course
学 分: 1	Credit(s): 1
开课单位: 物理与微电子科学学院	Offering College/School: College of Physics and Microelectronic Science

课程描述: 本课程是物理学专业学生开设的专业必修课,以大学物理和量子力学为前导课程,为后续专业课学习提供必备基础。

本课程的主要内容是通过物理学和光电子学领域的 8 位教授结合自己的研究及相关领域研究前沿,整理成不同的专题进行讲述。通过该课程的学习使学生能够了解物理学和光电子学前沿热点问题,培养学生对物理和光电子学专业的学习和研究兴趣。

Course description: This is a specialized course for majors of Applied Physics. Its leading courses are college physics and quantum mechanics, and so on. This course provides a necessary foundation for learning follow-up professional courses.

This course consists of several lectures by several professors in the fields of physics and optoelectronics, aiming at the students' learning the recent progress and development of physics and optoelectronics. The study of this course develops the students' interest for their study of physics and optoelectronics.

编 码: PH05022**Code:**PH05022**课程名称:** 专业综合实验**Course Title:**Specialty Comprehensive Experiment**课程类别:** 专业核心**Course category:**Required Core Course**学 分:** 2**Credit(s):**2**开课单位:** 物理与微电子科学学院**Offering College/School:**College of Physics and Microelectronic Science

课程描述: 本课程作为物理类本科生接触的第一个专业基础学科, 其研究内容和方法也为其他物理课程的学习奠定了基础。通过本课程的教学, 使学生系统的掌握物理学的基本原理和基本知识, 培养学生分析问题, 解决问题的能力。

Course description: The course is the basic subject to study the hot phenomenon and its law. Thermal physics originates from the exploration on the phenomenon of hot and cold. It includes two different description methods, i.e., thermodynamics and statistical physics. On the basis of the point of view of energy transformation, thermodynamic gives the laws of transformation of macroscopic quantities such as heat, work, and internal energy. Statistical physics determines the relationship between macro and micro amount, and give the microscopic nature of some properties of gas by using statistical methods to analyze the law of the thermal motion of gas molecules according to the microstructure of the material.

编 码: PH05023**Code:**PH05023**课程名称:** 半导体物理**Course Title:**Semiconductor Physics**课程类别:** 专业核心**Course category:**Required Core Course**学 分:** 3**Credit(s):**3**开课单位:** 物理与微电子科学学院**Offering College/School:**College of Physics and Microelectronic Science

课程描述: 本课程是应用物理专业的专业核心课程。本课程全面讲解半导体物理的基本内容。这些内容是理解半导体的物理性质和光电器件制备原理的基础。反映了半导体技术在本世纪的进步,包括许多新出现并已进入市场的半导体器件。本课程适合于物理和电子专业的学生。通过学习本课程,学生学会半导体中电子运动规律与基本物理性质,获得半导体的能带理论与电子状态,载流子的统计分布与运动规律、金属与半导体接触的基本理论等知识,锻炼和提升应用半导体基本理论分析解决相关问题的能力,为今后从事半导体相关课程学习和实际应用打下重要的理论基础。

Course description: The course provides comprehensive coverage of fundamental semiconductor physics. This subject is essential to an understanding of the physics and operational principles of a wide variety of semiconductor electronic and optoelectronic devices. It reflects advances in semiconductor technologies in this century, including many new semiconductor devices that have emerged and entered into the marketplace. The course is suitable for students in physics and electronics.

编 码: PH05024	Code: PH05024
课程名称: 固体物理 B	Course Title: Solid State Physics B
课程类别: 专业核心	Course category: Required Core Course
学 分: 3	Credit(s): 3
开课单位: 物理与微电子科学学院	Offering College/School: College of Physics and Microelectronic Science

课程描述: 本课程是电子科学与技术专业的一门专业核心课程,以量子力学和统计物理为前导课程,为半导体物理、电子器件等后续课程学习提供理论基础。

本课程包括晶体结构、晶体衍射、晶体结合、晶格振动、金属电子论、能带理论、晶体缺陷等内容。学生须了解固体物理学的基本概念,理解和掌握固体物理学的基本规律,并能灵活运用这些概念和规律来解释或解决固体物理学中的一些基础问题。通过学习本课程,学生须学会晶体结构周期性、对称性、布拉格方程和劳厄方程、五种化学键、声子、费米能(费米面)、允带和禁带、有效质量、空穴等基本概念或基本规律,获得这些概念和规律所组成的固体物理学知识体系,锻炼和提升分析晶体结构、微观粒子相互作用、晶体能带及其对电子、声子、光子等微观粒子状态影响等方面的能力,以及跟踪固体物理前沿进展的能力。

Course description: This course is a professional core course of Electronic Science and technology, which leading courses are Quantum Mechanics and Statistical Physics, and it will give a theoretical basis of the following courses such as Semiconductor Physics and Electronic Device Physics.

This course includes crystal structure, crystal diffraction, crystal lattice vibration, crystal binding, electron gas theory, band theory, crystal defects and so on. Students are required to understand the basic concepts of solid state physics, to understand and grasp the basic laws of solid state physics, and to use flexibly these concepts and rules, to explain or solve some basic problems in solid state physics. By learning this course, students are required to learn the periodicity and symmetry of crystal structure, Bragg equation and Laue equation, five kinds of chemical bonds, phonons, the Fermi energy (Fermi face), allowed band and band gap, effective mass, hole and other basic concepts and basic rules, gain solid state physics knowledge system constituted by these concepts and rules, train and enhance the abilities to analysis crystal structure, micro particle interactions, crystal energy band, the states and interactions between electrons, phonons and/or photons, and to track the progress of solid state physics frontier.

编 码: PH05025	Code:PH05025
课程名称: 固体物理 A	Course Title:Solid State Physics A
课程类别: 专业核心	Course category:Required Core Course
学 分: 3	Credit(s):3
开课单位: 物理与微电子科学学院	Offering College/School:College of Physics and Microelectronic Science

课程描述: 本课程是应用物理专业的专业核心课程,以大学物理、热力学与统计物理学、量子力学为前导课程,为凝聚态物理及材料科学等方面课程学习提供基础和必要知识准备。

本课程主要包括金属自由电子论、晶体结构、能带论、晶格振动、晶体结合、晶体缺陷等基本概念和基础知识等内容,学生需了解固体的微观结构及其组成粒子(原子、离子、电子、分子等)之间的相互作用与运动规律,理解固体宏观物性的物理学基础,掌握金属自由电子论、晶体结构、能带论、晶格振动等基本内容,并能灵活运用一系列模型研究,从微观尺度阐明固体力、热、光、电等宏观性质的物理本质。通过学习本课程,学生学会处理固体及凝聚态的常用手法,获得书本基础知识的同时了解相关前沿科研成果及进展,锻炼和提升科学研究的基础能力。

Course description: This is a core course for major of applied physics, which is based on the College Physics, Thermodynamics and Statistical Physics and Quantum Mechanics, and prepared for further studies of Condensed Matter Physics and/or Material Sciences etc.

Its main content includes the free electron theory of metals, crystalline structures, the energy band theory, lattice vibrations, cohesion of crystals etc. Students need to know the microstructures of solids, the interactions and movements of its components: atoms/ions/electrons/molecules; then to understand the physics origins of the properties of solids, and master the free electron theory of metals and the energy band theory etc; finally to interpret the physical origins of macro-properties of solids, such as mechanical, thermodynamic, optical and electrical properties, with a series of models investigation in micro-scales. By studying this course, students learn the usual methods used in Solid State Physics to deal with kinds of materials, gaining the basic knowledge and the frontier researches in close fields as well, and eventually practicing and improving their skills and abilities for related researches in the future.

编 码: FL03001**Code:** FL03001**课程名称:** 综合英语 I**Course Title:** Integrated English I**课程类别:** 学门核心**Course category:** Introductory Major Course**学 分:** 4**Credit(s):** 4**开课单位:** 外国语与国际教育
育学院**Offering College/School:** College of Foreign Languages and
International Studies

课程描述: 英语语言水平是英语专业学生综合素质的核心部分,可决定其今后专业学习发展格局。本课程作为大学第一学期的英语语言专业课承担着双重任务。一是帮助学生建立专业意识,使其认识到语言专业学习的特点,并发展培养其学习兴趣。同时帮助学生的学习方法上完成高中英语科目向大学专业英语的过渡。本课程选用“十二五”国家规划教材,大部分课文都出自名家之手,文体多样,能够最大程度激发学生的兴趣,帮助学生建立语言审美。

通过本课程的学习,学生能够阅读相当于英文原版报刊杂志难度材料,能与母语人士进行关于日常熟悉话题的讨论,并能基本通顺的通过口头或书面的方式表达观点。

Course description: For English majors, English language proficiency is an integral part of their studies. Without solid English proficiency, both their future major studies and language learning may be impeded. This course thus plays the dual role of boosting language learning awareness and bridging the gap between the high school English subject and university major studies. The textbook is highly authoritative and enlightening. Most texts are classical ones, which are ideal language models and interest stimulators.

With this course, students are able to read English newspaper and magazines fluently, and exchange opinions with native speaks on familiar topics in both the oral and written way.

编 码: FL03002	Code:FL03002
课程名称: 综合英语 II	Course Title: Integrated English II
课程类别: 学门核心	Course category: Introductory Major Course
学 分: 4	Credit(s): 4
开课单位: 外国语与国际教育学院	Offering College/School: College of Foreign Languages and International Studies

课程描述: 综合语言能力很大程度上决定了语言专业学生未来的专业发展。本课程在《综合英语 I》基础上继续开设,旨在通过阅读文体更加丰富的材料,对其进行多角度深入剖析、分组讨论和反思,进一步提高学生的英语语言和思辨水平。同时,教会其发展语言水平的基本方法,使其具备终身学习提高语言水平的能力。

通过本课程的学习,学生能够阅读相当于英文原版评论难度的材料,能与母语人士进行关于日常熟悉话题的深入讨论,并能自如的通过口头或书面的方式表达观点。最重要的是学生能够掌握提高语言水平的方法,能够持续地独立学习提高。

Course description: Language proficiency has largely determined future development of English majors. This course aims to further improve language proficiency of learners by reading materials of various topics and genres extensively and analytically. Group discussion and reflection can meanwhile highly stimulate critical thinking. Moreover, Learning methods are highlighted to facilitate life-long learning of language learners.

With this course, learners can read materials with difficulty of newspaper column and critiques fluently, and discuss in depth familiar topics with native speakers. They are also able to write on these topics fluently. Most importantly, they are equipped with the capability to develop their own language proficiency independently.

编 码: FL03003	Code: FL03003
课程名称: 英语语音与配音 I	Course Title: English Pronunciation and Dubbing I
课程类别: 学门核心	Course category: Introductory Major Course
学 分: 3	Credit(s): 3
开课单位: 外国语与国际教育学院	Offering College/School: College of Foreign Languages and International Studies

课程描述: 本课程是为英语专业本科一年级学生第一学期开设的学门核心课, 由语音与配音、视听和口语三部分组成。各自有独立的科学体系, 却又相辅相成, 互相关联。在语音能力方面, 学生能够掌握标准英式和美式英语发音, 使用自然得体的语音语调进行朗读和口语交际。在语音训练方面, 将语音训练与电影配音、英语听能与口语表达训练有机结合, 通过有效的训练以纠正学生语音语调缺陷。在听力理解方面, 通过采用多种形式的视听训练, 帮助学生初步克服听力障碍, 听懂英语国家人士在一般社交场合的交谈和相当于中等难度的视听材料; 能理解大意、抓住主要论点或情节, 领会说话人的态度、感情和真实意图, 并用英语简要地作笔记; 能听懂慢速 VOA 和 BBC 新闻的主要内容并逐渐过渡到中等速度的新闻素材; 能大体辨别各种英语变体。在英语口语表达能力方面, 要求学生能较清楚地表达自己的思想, 能准确运用诸如询问、请求、建议、忠告等交际功能。树立主动开口讲英语的自信, 培养讲英语的热情和兴趣, 逐步达到在英语口语表达的准确性与流利度。

Course description: This is a required course for English majors in the first semester, aiming at the students' mastery of received English pronunciation, some basic listening and speaking skills. The study of this course develops the students' abilities to read aloud and communicate with natural and proper English pronunciation and intonation, to master the tactics for listening, to acquire note-taking skills by systematic training. Through the practice of pronunciation, film dubbing, listening and speaking, the students can improve their pronunciation and intonation for communication, thus laying a solid foundation for the follow-up course. The main contents of this course are English sounds in isolation and sounds in connected speech including the vowels, strong and weak forms, sense group and pausing, liaison, word stress, sentence stress, rhythm, intonation and some basic listening and speaking skills, such as listening for gist, identifying specific information, understanding inferences, note-taking, VOA & BBC news and to speak English confidently with gradual accuracy and fluency.

编 码: FL03004**Code:**FL03004**课程名称:** 英语语音与配音 II**Course Title:**English Pronunciation and Dubbing II**课程类别:** 学门核心**Course category:**Introductory Major Course**学 分:** 3**Credit(s):**3**开课单位:** 外国语与国际教育
育学院**Offering College/School:**College of Foreign Languages and
International Studies

课程描述: 本课程是为英语专业本科一年级学生第二学期开设的学门核心课, 由语音与配音、视听和口语三部分组成。本课程的教学强调其实践性: 其一, 课堂内的实践, 配合语音实验室的实践, 注重引导学生将已学的英式英语和美式英语语音语调进行英语新闻配音, 能使用自然得体的语音语调进行口语交际。其二, 进一步强化听力技能的训练, 使学生能听懂英美国家人士关于日常生活, 社会文化的访谈或演讲, 能听懂正常语速 VOA、BBC 和 CCTV 新闻的主要内容, 能抓住新闻要点和有关细节;能用英语作笔记, 掌握听写技能。其三, 在英语口语表达能力方面, 利用已掌握的英语对各种话题进行交流, 并逐步达到英语口语表达的准确性与流利度。能运用已掌握的语音知识和口语技能较流利地表达自己的思想、陈述自己的观点。

Course description: This is a required course for English majors in their second semester, aiming at improving pronunciation, listening comprehension abilities and communicative abilities by providing systematic training for dubbing, listening and speaking skills, thus laying a solid foundation for the follow-up courses. The main contents include British English, American English, interview and news dubbing, tactics for spot dictation, short-term memory training for sentence dictation, listening for gist, identifying specific information, factual details and drawing inferences. The students are expected to express on a variety of topics accurately and fluently and to speak out their own ideas and views with correct intonation and pronunciation.

编 码: FL03005**Code:** FL03005**课程名称:** 英语写作基础 I**Course Title:** Fundamentals of English Writing I**课程类别:** 学门核心**Course category:** Introductory Major Course**学 分:** 3**Credit(s):** 3**开课单位:** 外国语与国际教育
育学院**Offering College/School:** College of Foreign Languages and
International Studies

课程描述: 这是一门为英语专业一年级学生开设的学门核心课程。本课程旨在训练学生基础英语写作能力,尤其是句子和段落层面的写作技能,为学习篇章写作奠定基础。教学重点为句子和段落写作技能。句子写作涉及各种句式及其修辞功能的介绍,还包括各种句子范畴的错误。段落写作技能涉及段落的完整性、连贯性、多样性等,重点训练主题句、细节安排、结尾句以及各种段落发展模式的写作技巧。

Course description: This is a compulsory course for the first-year English majors. It provides a basic training of elementary writing skills for beginning writers, which lays a foundation for composition-level training. It covers various aspects of sentence and paragraph writing. As for sentence writing skills, different types of sentence and their rhetoric functions are introduced. Also discussed are typical sentence errors. The paragraph-level skills cover topics like unity, coherence and variety of paragraphs. This part highlights topic sentences, organization of details, concluding sentences, and different modes of paragraph development.

编 码: FL03006

Code:FL03006

课程名称: 英语写作基础 II

Course Title:Fundamentals of English Writing II

课程类别: 学门核心

Course category:Introductory Major Course

学 分: 3

Credit(s):3

开课单位: 外国语与国际教
育学院

Offering College/School:College of Foreign Languages and
International Studies

课程描述: 这是一门为英语专业二年级学生开设的学门核心课程。本课程突出训练学生篇章写作技能。通过对篇章主要部分及写作过程的介绍和训练, 引导学生掌握篇章写作的基本技法。此外, 本课程介绍不同文体文章的文体特点和写作要点。最后, 本课程还介绍应用文的写作技巧。

Course description: This is a compulsory course for the second-year English majors. It highlights the training of composition-level writing skills. By introducing the key components and major steps of composition writing and involving the students with much practice, it endeavors to equip them with the essentials of composition writing. In addition, it briefly sketches the stylistic characteristics and writing skills of different genres. Also covered in this course are the writing skills of practical writings.

编 码: FL03007

Code:FL03007

课程名称: 中国概览(英语)

Course Title:A Sketch of China

课程类别: 学门核心

Course category:Introductory Major Course

学 分: 3

Credit(s):3

开课单位: 外国语与国际教
育学院

Offering College/School:College of Foreign Languages and
International Studies

课程描述: 本课程介绍中国历史文化中的典型元素,如民族、民俗、宗教、历史古迹文物、饮食等,勾勒中国历史文化诸多方面发展演变的主要轮廓,更重要的是揭示历史文化对当代中国人和中国社会潜在的精神状态影响。在了解史实的同时也借助其他媒介,如相关纪录片、小说等增加语言输入,提高学生对中国历史文化的理解和认知。

Course description: A Sketch of China gives a brief account of representative elements of Chinese history and culture, such as the native people, folk culture, religions, historical relics and cuisine, etc.. It sketches the evolution of these aspects and what's more, it tries to unveil the ties between the spiritual aspects of modern Chinese people and society and Chinese history and culture. With the aid of relevant input like documentaries and novels, it hopes to improve students' understanding and enhance their cognizance of our native history and culture.

编 码: FL03008	Code:FL03008
课程名称: 中国哲学与文化	Course Title:Chinese Philosophy and Culture
课程类别: 学门核心	Course category:Introductory Major Course
学 分: 3	Credit(s):3
开课单位: 外国语与国际教育学院	Offering College/School:College of Foreign Languages and International Studies

课程描述: 这是为英语专业一年级本科生开设的一门学门核心课, 其他专业学生亦可选修, 旨在提高学生自身的文化素养。本课程主要讲授中国哲学发生、发展及其演变的基本线索和基本内容, 强调并梳理中国的儒释道传统文化对日本与韩国的影响。通过分析与比较, 学生能更好地了解古代中国如何通过文化向心力对周边国家进行文化渗透, 了解“东亚”作为文化系统的共同因素是与儒学及佛教(包括道教的部分要素)密切相关, 了解东亚文化共同体的共性和个性, 理解在二十一世纪文明对话中东亚的角色与视角所具有的重大意义, 认识到二十一世纪“从东亚出发思考”这一转向的必要性和重要性, 从而提高文化交流自信心、自觉性和敏锐感。

Course description: This core course is primarily oriented to Year 3 students for English majors and other majors as well, aiming at cultivating their cultural literacy. It focuses on the general development of Chinese philosophy and its central topics. The influence of Chinese Confucianism, Daoism and Buddhism on Japan and South Korea will be examined. Through analysis and comparison, students will have a better understanding of ancient China and its cultural infiltration to its neighborhood, in which Chinese traditional culture is taken as a centripetal cultural force. Students are also encouraged to learn that “East Asian” as an integrated part of one cultural system has a strong historical link with Chinese Confucianism and Buddhism (and part of Daoism). Therefore, it is necessary for undergraduate students to have some knowledge about the universality and individuality of East Asian countries as one entity, to understand the significance of “the role of East Asian” played in the dialogue of civilization and the importance of the turn toward “perspectives from East Asian” in the twenty-first century. It is hoped that their confidence, consciousness and alertness will be improved in cultural communication.

编 码: FL03009

Code:FL03009

课程名称: 基础日语 I

Course Title: Comprehensive Japanese I

课程类别: 学门核心

Course category: Introductory Major Course

学 分: 4

Credit(s): 4

开课单位: 外国语与国际教
育学院

Offering College/School: College of Foreign Languages and
International Studies

课程描述: 本课程是面向湖南大学日语专业一年级第 1 学期开设的学门核心课程。选用普通高等教育“十五”国家级规划教材《新编日语》第一册修订版,通过听、说、读、写、译的基本训练,掌握正确的日语发音、基础知识、培养学生基础阶段扎实的日语知识灵活运用能力,了解日本文化。

Course description: This course is a core course designed for the freshmen, majoring in Japanese, and opened in first semester of the first academic year at Hunan University. The ordinary higher education "Tenth-five year" national planning materials "New Japanese" Volume I (revised edition) is selected as the textbook. It aims to help the students master the correct pronunciation, and primary knowledge, cultivate students' ability to apply Japanese flexibly at the foundation stage by basic practice in listening, speaking, reading, writing, and translation, and know well about Japanese culture.

编 码: FL03010

Code:FL03010

课程名称: 基础日语 II

Course Title: Comprehensive Japanese II

课程类别: 学门核心

Course category: Introductory Major Course

学 分: 4

Credit(s): 4

开课单位: 外国语与国际教
育学院

Offering College/School: College of Foreign Languages and
International Studies

课程描述: 本课程是面向日语专业一年级第 2 学期开设的学门核心课程。选用《新编日语》第二册修订版进行教学, 提高日语听、说、读、写、译的基本技能, 扩充词汇量, 为学习者构建扎实、完整的基础阶段日语语法体系, 并能进行初步的实践交流活动。同时, 加深学习者对日本社会和文化的理解, 扩大学习者的视野。

Course description: This course is a core course designed for the freshmen, majoring in Japanese, and opened in the second semester of the first academic year at Hunan University. The classic textbook "New Japanese" Volume II (revised edition) is selected. This book has been proved by long-term teaching practice, affirmed by experts and professionals, and favored by the vast majorities of teachers and students. It aims to improve students' basic skills in listening, speaking, reading, writing and translation, enlarge their vocabulary, set up a solid, complete Japanese grammar system, and enable them to carry out the basic communication and practice. Meanwhile, it is to further students' knowledge and understanding of the Japanese society and culture, and expand their horizon.

编 码: FL03011

Code:FL03011

课程名称: 基础日语III

Course Title:Comprehensive Japanese III

课程类别: 学门核心

Course category:Introductory Major Course

学 分: 4

Credit(s):4

开课单位: 外国语与国际教
育学院

Offering College/School:College of Foreign Languages and
International Studies

课程描述: 这是一门为日语专业学生开设的专业必修课,通过本课程的教学,学生基本掌握用日语进行听说读写的技能,提高综合运用所学知识的能力,达到中级程度日语水平。会话部分的教学重点在于:通过对课文内容及句型的理解、用口语进行模仿会话练习。阅读文部分的教学着重讲授并分析具有书面语特征句子的表达,并通过拓展练习,培养学生自主学习的能力。在课堂的会话、发表等实践练习中能根据不同的对象、表达意图选择不同的文体、语法形式和词汇。

Course description: This course is compulsory for Japanese majors. It aims to improve Japanese proficiency to intermediate level by integrating listening, speaking, reading and writing skills. Speaking Part focuses on conversation imitation based on the comprehension of texts and drills. Reading Part concentrates on the analysis and appreciation of written Japanese and fosters independent learning ability of students by intensive practices. After learning this course, students are able to select different genres, grammatical constructions and vocabulary for various communication intentions in class conversation and Japanese writing.

编 码: FL03012**Code:**FL03012**课程名称:** 基础日语Ⅳ**Course Title:**Comprehensive Japanese Ⅳ**课程类别:** 学门核心**Course category:**Introductory Major Course**学 分:** 4**Credit(s):**4**开课单位:** 外国语与国际教育
育学院**Offering College/School:**College of Foreign Languages and
International Studies

课程描述: 这是一门为日语专业学生开设的专业必修课,通过本课程的教学,使学生能全面牢固地掌握日语的语法、句型等方面的知识;提高学生综合运用所学知识的能力;加深对日本的社会及文化的了解。要求学生进一步掌握口语和书面语表达的规则,提高运用能力。会话的教学重点在于熟练掌握难度较高的会话技巧,例如网络聊天、班级讨论、论文口头发表等。通过本课程的教学,获得中级以上程度日语的运用能力,达到国内大学日语专业 4 级以上及日本国际日语水平测试 2 级以上水平。

Course description: This course is compulsory for Japanese majors. Through this course, students can develop a good command of Japanese grammar and sentence drills. It can improve their Japanese language proficiency and understanding of Japanese society and culture. The course aims to further improve language use of both spoken and written Japanese. Conversation Teaching focuses on advanced conversational skills necessary for online chats, class discussions and oral presentations. With this course, students can develop their Japanese language ability to intermediate level or above, or that equivalent to Level 4 for Japanese Majors or Level 2 of International Japanese Proficiency Test.

编 码: FL03013

Code:FL03013

课程名称: 日语语音

Course Title:Japanese Phonetics

课程类别: 学门核心

Course category:Introductory Major Course

学 分: 2

Credit(s):2

开课单位: 外国语与国际教
育学院

Offering College/School:College of Foreign Languages and
International Studies

课程描述: 本课程是日语语言文学专业本科生的一门学门核心课。通过系统地教学, 让学生掌握每个音的发音、发音法、声调、声调法、句子重音基本型、句子重音法、句调等方面的完整日语语音基础知识

Course description: This core course is for undergraduate majors of Japanese Language and Literature. The objective is to impart an integrated knowledge of Japanese pronunciation through systematic teaching. Included in this course are mainly the manner of articulation, the pronunciation of each sound, pronunciation rules, tones of voice, tone rules, the basic pattern of sentence stress, the rules of sentence stress and intonation.

编 码: FL03014

Code:FL03014

课程名称: 基础日语阅读 I

Course Title:Japanese Reading I

课程类别: 学门核心

Course category:Introductory Major Course

学 分: 2

Credit(s):2

开课单位: 外国语与国际教
育学院

Offering College/School:College of Foreign Languages and
International Studies

课程描述: 本课程是日语语言文学专业本科生的学门核心课程之一。在先修了综合日语 1 的基础上, 在学习综合日语 2 的同时, 通过大量地阅读简短的日文文章和小故事等来夯实日语语法基础, 深入掌握日语语法及其语用功能, 扩展日文词汇, 在夯实日语基础知识的同时加深对日本社会和文化的了解。

Course description: Elementary Reading I is a required course for undergraduates of Japanese Language and Literature major. It is based on Intensive Japanese I, and it is offered in the same semester as Intensive Japanese II. Through extensively reading Japanese essays and short stories, students will be able to strengthen their knowledge about grammar and pragmatics as well as to expand their Japanese vocabulary. While building on their basic knowledge about Japanese, students will also have a better understanding about Japanese society and culture.

编 码: FL03015

Code:FL03015

课程名称: 基础日语阅读 II

Course Title: Japanese Reading II

课程类别: 学门核心

Course category: Introductory Major Course

学 分: 2

Credit(s): 2

开课单位: 外国语与国际教
育学院

Offering College/School: College of Foreign Languages and
International Studies

课程描述: 本课程是日语语言文学专业本科生的学门核心课程之一。在先修了综合日语 1 的基础上, 在学习综合日语 3 的同时, 通过大量地阅读简短的日文文章和小故事等来夯实日语语法基础, 深入掌握日语语法及其语用功能, 扩展日文词汇, 在夯实日语基础知识的同时加深对日本社会和文化的了解。

Course description: Elementary Reading II is a required course for undergraduates of Japanese Language and Literature major. It is based on Intensive Japanese I and II, and it is offered in the same semester as Intensive Japanese III. Through extensively reading Japanese essays and short stories, students will be able to strengthen their knowledge about grammar and pragmatics as well as to expand their Japanese vocabulary. While building on their basic knowledge about Japanese, students will also have a better understanding about Japanese society and culture.

编 码: FL03016

Code:FL03016

课程名称: 基础日语阅读III

Course Title:Japanese Reading III

课程类别: 学门核心

Course category:Introductory Major Course

学 分: 2

Credit(s):2

开课单位: 外国语与国际教
育学院

Offering College/School:College of Foreign Languages and
International Studies

课程描述: 本课程是日语语言文学专业本科生的学门核心课程之一。在先修了综合日语 1、2、3 的基础上,通过大量地阅读简短的日文文章和小故事等来夯实日语语法基础,深入掌握日语语法及其语用功能,扩展日文词汇,在夯实日语基础知识的同时加深对日本社会和文化的了解。

Course description: The course is one of the compulsory courses for majors of Japanese Language and Literature. Through a lot of reading of simple Japanese essays and short stories, the students will improve their reading skills, grammar knowledge and enlarge their vocabulary, meanwhile, they will learn some information of the society of Japan.

编 码: FL03017

Code:FL03017

课程名称: 现代日语语法

Course Title: Modern Japanese Grammar

课程类别: 学门核心

Course category: Introductory Major Course

学 分: 2

Credit(s): 2

开课单位: 外国语与国际教
育学院

Offering College/School: College of Foreign Languages and
International Studies

课程描述: 这是一门为日语专业学生开设的专业核心课, 通过该课程的教学使学生能够从理论上对所学过的句型、语法点进行归类、总结; 使学生系统地掌握现代日语语法的基础知识, 提高分析、解决日语语法问题的能力及日语运用能力。

Course description: This is a compulsory course for the Japanese majors. The objectives of the course are to enable students to classify and summarize the sentence patterns and grammatical points they have learned, and to gain a systematic command of the fundamentals of modern Japanese grammar, and thus to enhance their ability to analyze, solve grammar problems, and to improve their language proficiency.

编 码: FL04002**Code:** FL04002**课程名称:** 英语语法**Course Title:** English Grammar**课程类别:** 学类核心**Course category:** Major Survey Course**学 分:** 3**Credit(s):** 3**开课单位:** 外国语与国际教
育学院**Offering College/School:** College of Foreign Languages and
International Studies

课程描述: 《英语语法》是为英语专业一年级本科生开设的一门必修课程,旨在帮助学生把已学的语法知识系统分类,加深巩固,以便于提高学生英语交际的准确性,促进专业学习。课程主要介绍英语语言的语法体系,融合传统语法和现代语言学的一些研究成果,提高英语语言知识的广度和深度。内容上包括词法、句法和章法,既有重点又有系统,内容丰富,涉及面广。

Course description: This compulsory course is primarily oriented to Year ONE students for English majors, aiming at helping students categorize their grammatical knowledge and promote their communicative accuracy. The course mainly introduces the grammatical system of the English language, which is a mixture of traditional grammar and modern linguistics. Rich in content, it covers lexicon, syntax and discourse.

编 码: FL04003**Code:**FL04003**课程名称:** 英语词汇学**Course Title:**English Lexicology**课程类别:** 学类核心**Course category:**Major Survey Course**学 分:** 3**Credit(s):**3**开课单位:** 外国语与国际教育
育学院**Offering College/School:**College of Foreign Languages and
International Studies

课程描述: 这是一门为英语专业学生开设的学类核心课。该课程以现代语言理论为基础,以英语词汇为研究对象。通过本课程的学习,学生应能分析英语单词的结构,了解英语的各种构词方法,能够较好地分析英语单词的意义及词义关系,了解英语词汇的构成、词义和词形的历史演变及其演变的原因和过程,了解英语词汇的来源、最新发展和国别特征,并能对现代英语词汇发展的趋势和所出现的现象做出分析和解释,提高运用英语的能力。了解英语成语及英语词典的有关知识。本课程根据高等学校英语专业词汇学教学大纲进行教学,重点落在单词的结构,构词法,单词的意义及其词义关系,英语词汇的构成,词义的历史演变,成语及词典知识。

Course description: This is a required course for English majors. The aim of this course is to familiarize the students with lexicology as a linguistic discipline, with the basic notions related to it, and with synchronic explorations including lexicography, its history and the current lexicographical sources, semantically as well as morphologically. Most of the course is devoted to the diachronic view of the Contemporary English lexis, its development, standardization, rise of geographical variants, internationalization, as well as rise of English as a lingua franca. The course concludes with a theoretical chapter on borrowing, on its processes and linguistic consequences.

编 码: FL04004**Code:** FL04004**课程名称:** 英汉语言对比**Course Title:** Comparative Studies of English and Chinese**课程类别:** 学类核心**Course category:** Major Survey Course**学 分:** 3**Credit(s):** 3**开课单位:** 外国语与国际教育
育学院**Offering College/School:** College of Foreign Languages and
International Studies

课程描述: 本课程是英语专业学类课程。旨在帮助英语专业学生全面了解英汉语言的本质特征和差异,增强学生对汉语尤其是现代汉语的基本特点的体认。为将来从事翻译、语言文学和商务英语学习打好坚实基础。内容从跨语言比较的角度详细介绍英汉语言之间的异同。内容主要包括英汉语言的类型差异、源流演变差异、英汉语研究的沿革和现状、英汉语言各个组成部分(语音、词汇、句法、话语、文字、社会变异等)角度的差异。

Course description: The present course is a required course for English majors designed to help the undergraduate students of English Major gain a thorough understanding of the inherent properties of the two languages and the differences between them, to better their awareness and understanding of the characteristics of Modern Chinese, and to lay a solid foundation for the further study of translation, linguistics and literature and commercial English. It introduces in details the similarities and differences of English and Chinese from the cross-linguistic perspectives. The main contents are typological differences between English and Chinese, the historical development of English and Chinese, a historical sketch of the studies of the two languages and the status quo, and a detailed introduction of the similarities and differences in various level, phonetic, lexical, syntactic, discourse, writing and social variation.

编 码: FL04005

Code:FL04005

课程名称: 语言、文化与交际

Course Title:Language culture and communication

课程类别: 学类核心

Course category:Major Survey Course

学 分: 3

Credit(s):3

开课单位: 外国语与国际教
育学院

Offering College/School:College of Foreign Languages and
International Studies

课程描述: 这是为英语专业二年级本科生开设的一门必修课,旨在向学生介绍语言本质的基本问题,即与其他学者不同之处在于语言学家感兴趣的是语言和人类学习、使用语言的能力。本课程将从跨学科的视角、透过具体的选题,探索对上述一般问题的答案;从这些不同的答案中,学生将了解关于语言的不同理论,以及这些理论与文化、与其他交际形式、与人类大脑心智之间的联系。

Course description: In this compulsory course we introduce some fundamental questions about the NATURE OF LANGUAGE that divide linguists and other scholars concerned with language and the human capacity to learn and use language. We explore the general questions through addressing specific topics from an interdisciplinary perspective. The different answers to these questions lead to different theories of language, and its relationship to culture, to other forms of communication, and to the human mind and brain.

编 码: FL04006	Code: FL04006
课程名称: 普通语言学导论	Course Title: Introduction to Linguistics
课程类别: 学类核心	Course category: Major Survey Course
学 分: 3	Credit(s): 3
开课单位: 外国语与国际教育学院	Offering College/School: College of Foreign Languages and International Studies

课程描述: 本课程是语言学专业的一门基础理论课,旨在介绍现代语言学的基础知识,基本理论、基本分析方法。为该专业后续课程的学习奠定基础。本课程是高等院校英语专业语言学方向必修课程之一。本课程向学生介绍语言学领域的重要研究成果,包括语音学、词汇学、句法学、语义学、语用学的基本理论以及历史语言学、语言习得、社会语言学、语言文字等相关内容。通过本课程的学习,学生将具备语言学的基本知识、熟悉基本理论和灵活使用相应的分析方法。本课程强调培养学生对语料和语言现象分析能力,培养学生的语言学科学精神。课程成绩由平时成绩和期末考核两部分组成。平时(包括课外文献阅读和书面作业)成绩占 30%;期末考试成绩占 70%。

Course description: This is an introductory course of linguistics, aiming at English majors as a required course. It is designed to educate students in some basic knowledge, terms, theories, schools of modern linguistics, covering phonetics, phonology, morphology, syntax, semantics, pragmatics, historical linguistics, sociolinguistics, language acquisition etc. Its objectives are to help students to examine their own linguistic beliefs and attitudes; to enable students to be aware of both the diversity of language systems and their fundamental similarities; to give students a reasonable taste of most of the subfields of linguistics: phonetics, phonology, morphology, semantics, syntax, pragmatics, historical linguistics, language acquisition, and sociolinguistics; to equip students with some tools and techniques for linguistic analysis and to give them some practice in using these to discover the organizing principles of a language. The students are expected to do some extracurricular readings and homework, which will take up 30 percent of the final score together with attendance, class discussion and presentation; and a final examination, which will take up 70 percent.

编 码: FL04007**Code:** FL04007**课程名称:** 英语散文赏析**Course Title:** Selected Readings of English Essays**课程类别:** 学类核心**Course category:** Major Survey Course**学 分:** 3**Credit(s):** 3**开课单位:** 外国语与国际教育
育学院**Offering College/School:** College of Foreign Languages and
International Studies

课程描述: 这是一门为英语专业一年级学生开设的学类核心课程,旨在通过教师讲解,使得学生了解英语散文这一特殊文体,提升其英语阅读能力,增加对英语文化以及语言与文化关系的理解;并使学生综合了解英美文化、风俗、习惯、历史、传统等许多方面的知识,体会名家对文学、艺术、历史、社会、宗教和日常生活领域的精辟见解,提高学生的审美情趣,文学修养、鉴赏水平和文化综合素质,初步学会分析和欣赏名家名篇,把握作品中反映的不同时代社会、哲学和艺术思想。此外,英语散文阅读还要求学生通过学习不同的体裁的文章,包括随笔、书信、游记、演说辞等,掌握其写作特点,从而在写作中学会有意识地选词和用词,提高英语作文的质量,并进而写出优美的文章。同时锻炼自身的批判性思维,熟稔部分英语作家,最终能够有效输出语言,综合运用语言。

Course description: This is a required course for English majors, aiming at cultivating students' ability to appreciate English essays, learn about culture, customs, life, history and tradition of English-speaking countries, and understand pearls of wisdom of those famous writers on literature, art, history, society, religion and daily life. Through reading these essays, students can make progress in the analysis and appreciation of classic literary works, develop critical thinking and evaluation skills and master philosophical and artistic thoughts. Students are also required to master rhetorical devices, other writing techniques and writing features of each essay so as to improve their writing skills. In the process, this course will enhance students' ability to utilize linguistic knowledge effectively.

编 码: FL04008

Code:FL04008

课程名称: 英语小说赏析

Course Title:Selected Readings of English Novels

课程类别: 学类核心

Course category:Major Survey Course

学 分: 3

Credit(s):3

开课单位: 外国语与国际教
育学院

Offering College/School:College of Foreign Languages and
International Studies

课程描述: 这是一门为英语专业二年级学生开设的学门核心课程,旨在帮助学生了解世界著名作家及其作品、写作风格,文学类型等,以提高学生的英语语言能力及文学素养。这门课程将学习 15 位世界著名作家的英语经典中篇小说(2 篇)和短篇小说(13 篇),类型包括浪漫主义、现实主义、自然主义、心理现实主义等;小班讨论将简略介绍小说的叙事要素与叙述方法,并要求学生按照所讲内容写作,以培养学生创作小说的能力。

Course description: This is a required course for the sophomore of English majors, aiming at helping students to read the world famous writers and their works, and understand their styles and genres. It will introduce 16 world famous writers and their classic English novellas (2) and short stories (14), genres involving Romanticism, Realism, Naturalism, and Psychological Realism, etc.; the elements of the fiction and its narrative techniques will be briefly introduced in order to train the students to learn to write fictions.

编 码: FL04009	Code: FL04009
课程名称: 中英诗歌对比赏析	Course Title: A Comparative Study of English and Chinese Poetry
课程类别: 学类核心	Course category: Major Survey Course
学 分: 3	Credit(s): 3
开课单位: 外国语与国际教育学院	Offering College/School: College of Foreign Languages and International Studies

课程描述: 这是一门为英语专业二年级学生开设的学类核心课,旨在帮助学生提高对中英诗歌对比分析与鉴赏的能力,厘清中国诗歌与英美诗歌的发展脉络。根据诗歌的主题及表现内容分类,本课程将挑选一些有影响的中英诗人及其具有可比性的典型中英诗歌文本进行比较,分析中英诗歌的语言特征、意象表现、写作技巧、关注角度、文化移植、改写运用等方面内容,侧重探讨中国古典诗与英美现代诗之间的内在关联。通过文本分析和比较,本课程将帮助学生培养鉴赏中英诗歌异同的能力,加深对两种语言与文化的理解,提高学生的写作能力、翻译能力和文学素养,了解中国文化在现代英美诗歌中的改写现象。

Course description: This is a required course for English majors in their second year study, aiming at cultivating students how to compare and appreciate some English and Chinese poems, and helping them to have some knowledge about the development of English and Chinese poetry. Based on motif and content, some typical English and Chinese poems by influential practitioners will be served as compared texts in the study of this course. It focuses on one or more topics for each chapter to analyze some linguistic characteristics, images, style, techniques, concerns, acculturation and adaptation involved in English and Chinese poetry. The interconnectedness between Chinese classical poetry and modern English poetry will be emphasized. Through textual analysis and comparison, this course will help students develop their abilities of appreciating Chinese and English poetry, deepen their poetic knowledge in two languages and cultures, improve their abilities of literary analysis, and strengthen their skills in academic research, translation and creative writing. Also, this course will enable students to learn how Chinese culture is acculturated and adapted in modern English poetry.

编 码: FL04010**Code:**FL04010**课程名称:** 英语国家简史**Course Title:**A Brief History of the English-speaking Countries**课程类别:** 学类核心**Course category:**Major Survey Course**学 分:** 3**Credit(s):**3**开课单位:** 外国语与国际教育
育学院**Offering College/School:**College of Foreign Languages and
International Studies

课程描述: 《英语国家简史》是湖南大学外国语学院开设的学类核心必修课程。主要讲授英国、美国等英语国家建立、发展的历史、政治和经济建设及社会文化现状。本课程还会对英国、美国的教育、宗教、社会组成、语言政策领域众多热点问题探讨。通过本课程的学习，学生们将了解成就英语国家的世界经济、政治地位的原因，为形成科学的历史发展观打下基础。

Course description: A History of the English-speaking countries is a required core course offered by College of Foreign Languages, Hunan University. It mainly covers the histories pertaining to the founding and development of the UK and USA, the past and current major issues in politics, economy and societies. The course also discusses many heated issues in their education, religions, demographics, and language policies. Trough the course, students will understand the underlying reasons for the economic, political status of English-speaking countries and it is hoped that this course will help the cultivation of an objective world outlook.

编 码: FL04011**Code:**FL04011**课程名称:** 英语报刊阅读**Course Title:** Selected Readings from English Newspaper**课程类别:** 学类核心**Course category:** Major Survey Course**学 分:** 3**Credit(s):** 3**开课单位:** 外国语与国际教育
育学院**Offering College/School:** College of Foreign Languages and
International Studies

课程描述: 课程的主要目的是培养英语专业学生阅读英文报刊资料的基本功。通过英语报刊阅读教学,使学生了解与掌握英语报刊阅读知识和重要的英美报刊的基本情况,熟悉报刊文章的语言、语篇及文体的特点;培养学生阅读理解英语报刊的能力、丰富各方面的知识、进一步扩大词汇量,提高学生的阅读理解能力和思想表达能力。学生在老师的指导下,通过接触不同题材的文章,拓宽视野,扩大知识面,加深对西方社会的政治、经济和文化等方面的认识,提高对信息的敏感性和发掘、利用信息的能力。

Course description: This course aims at acquainting the student with the reading of English newspapers or news magazines. Students will be able to be familiar with the main newspapers and magazines in UK & US and understand the language and stylistic features of the articles in these newspapers and magazines. This course arouses the students' interest in reading English newspapers and magazines and at the same time enlarges their horizons and broadens their vocabulary. Under the guidance of the teacher, students will be introduced to western culture and society and be able to understand some relevant knowledge on each teaching topic. Students are equipped with wide-ranging English newspaper terms to enable them to keep abreast of the latest information.

编 码: FL04012

Code:FL04012

课程名称: 日语口语 I

Course Title:Spoken Japanese I

课程类别: 学类核心

Course category:Major Survey Course

学 分: 3

Credit(s):3

开课单位: 外国语与国际教
育学院

Offering College/School:College of Foreign Languages and
International Studies

课程描述: 日语口语 I 是面向日语专业 1 年级学生的学类核心课程。其目的是培养学生利用日语语言表达思想、进行口头交际的能力。日语口语 1 的教学目的, 是依据义务教育阶段日语专业教学大纲的要求加强培养及训练学生日语语言知识的基本转换能力。是一门日语技能和能力的实践课。

Course description: The Course “Spoken Japanese I ” is an important course for the professional Japanese learning in the initial stage. Its purpose is to cultivate students’ ability to use Japanese to express ideas, and conduct verbal communication in Japanese. The purpose of “Oral Japanese 1” is to enhance the cultivation and training of the basic ability of transferring the students’ Japanese knowledge based on the syllabus for Japanese Major at the compulsory education stage. It is a practical course of the skills and ability of Japanese.

编 码: FL04013**Code:**FL04013**课程名称:** 日语口语 II**Course Title:**Spoken Japanese II**课程类别:** 学类核心**Course category:**Major Survey Course**学 分:** 3**Credit(s):**3**开课单位:** 外国语与国际教育
育学院**Offering College/School:**College of Foreign Languages and
International Studies

课程描述: 日语口语 2 是是专业日语一年级第 2 学期的核心课程, 其目的是提高学生利用日语进行基础阶段日常交际及意识表达的能力。在日语口语 1 的基础上, 学生通过读和听获得知识、信息和语言, 对所获得内容和语言进行加工和重组, 赋予新的内容, 然后输出, 从而完成交际的全过程。培养学生用日语较准确地陈述自己的意见, 同时加强学生的词汇和语法。此外, 以会话句为基础, 让学生掌握日语中包括敬语在内的常用表达方式。

Course description: The Course “Spoken Japanese II” is a professional core course in Japanese in the second semester for the first grade, aiming at improving the students' ability to use Japanese in daily communication for the preliminary stage. Based on the Course “Oral Japanese 1”, the students process and reconstruct the contents and information which the students obtain through reading and listening, endow with new contents, and put out so as to complete the whole process of the communication. It also aims at cultivating the students’ ability of expressing themselves in a comparatively accurate way in Japanese, and meanwhile improving the students’ vocabulary and grammar. In addition, it also aims at making the students command the ordinary expressions including the honorifics in Japanese based on the conversation sentences.

编 码: FL04014	Code: FL04014
课程名称: 日语口语III	Course Title: Spoken JapaneseIII
课程类别: 学类核心	Course category: Major Survey Course
学 分: 3	Credit(s): 3
开课单位: 外国语与国际教育学院	Offering College/School: College of Foreign Languages and International Studies

课程描述: 本课程适用于日语语言文学本科专业学生,通过讲授日语口语表达特点,结合语言学理论和口头表达技能实践,使学生能初步掌握日语口语交流的基本规律及应用技巧,能比较熟练地掌握和运用日常生活场景中的“功能发话”所需的词汇语言知识,具备一定的“社会语言能力”、“谈话管理能力”和“谈话策略能力”。重点从会话技能、口头概述及公众演讲技巧等几个方面分层次加强口语实践,提高日语口语水平。本系列课程的目标在于使学生在毕业后进入日企,或其他与日语专业相关的机构企业工作,从事办公室文秘接待,或日汉、汉日口译工作时具备所需的日语口语水平。在工作中能运用各种口语交际方法及技巧,与日本人进行顺畅的沟通 and 交流。同时为将来有志于赴日留学深造的同学在今后的留学学习生活中的口语交流打下比较坚实的基础。

Course description: As a compulsory course for Japanese Language and Literature undergraduates, spoken Japanese language covers the characteristics of expression, integrating the linguistic theory and the practice of verbal skills, so that the students can master the preliminary oral communication skills of Japanese and the basic rules of Japanese, and can be more proficient in using Japanese in everyday life. Students are also required to study the lexical knowledge, have a certain social language skills, conversational management skills, and conversational strategies. This course aims to strengthen students' speaking skills, and improve verbal and public speaking skills from practices, and thus the students can enter the Japanese companies after graduation, or other professional organizations associated with Japan companies, working with the required level of spoken Japanese as interpreter. At work they can use a variety of oral communication skills, and exchange with the Japanese customers smoothly. This course also lays a solid foundation for those students who are aspiring to study in Japan for further education.

编 码: FL04015	Code:FL04015
课程名称: 日语口语Ⅳ	Course Title:Spoken JapaneseⅣ
课程类别: 学类核心	Course category:Major Survey Course
学 分: 3	Credit(s):3
开课单位: 外国语与国际教育学院	Offering College/School:College of Foreign Languages and International Studies

课程描述: 本课程适用于日语语言文学本科专业学生,通过讲授日语口语表达特点,结合语言学理论和口头表达技能实践,使学生能初步掌握日语口语交流的基本规律及应用技巧,能比较熟练地掌握和运用日常生活场景中的【功能发话】所需的词汇语言知识,具备一定的【社会语言能力】、【谈话管理能力】和【谈话策略能力】。重点从会话技能、口头概述及公众演讲技巧等几个方面分层次加强口语实践,提高日语口语水平。本系列课程的目标在于使学生在毕业后进入日企,或其他与日语专业相关的机构企业工作,从事办公室文秘接待,或日汉、汉日口译工作时具备所需的日语口语水平。在工作中能运用各种口语交际方法及技巧,与日本人进行顺畅的沟通和交流。同时为将来有志于赴日留学深造的同学在今后的留学学习生活中的口语交流打下比较坚实的基础。

Course description: This course aims at helping Japanese Language and Literature undergraduates to apply linguistic theory, useful expressions, basic verbal communication skills and rules in daily Japanese speaking. Students are expected to acquire Japanese vocabulary, social language ability, conversational management skills and conversational strategies. This course focuses on strengthening students' speaking ability by training their conversational skills, oral summary and public speaking. The objective of this course is to pave the way for graduates to use various ways of speaking to naturally communicate with native Japanese, work for Japanese companies or Japanese joint ventures as secretaries or interpreters, or further their education in Japan.

编 码: FL04016

Code:FL04016

课程名称: 日语视听 I

Course Title:Audiovisual Japanese I

课程类别: 学类核心

Course category:Major Survey Course

学 分: 3

Credit(s):3

开课单位: 外国语与国际教
育学院

Offering College/School:College of Foreign Languages and
International Studies

课程描述: 日语视听 I 以日语专业一年二期学生为对象而开设的课程。采用教材《初级日语听力教程》，使学生在听选，听写，听读，听说几个方面的能力得到较大的提高。给学生的听解能力和培养学生良好的听力学习方法打下坚实的基础。同时还在课堂讨论时采用《简明听解》这本图文并茂，蕴知识性，趣味性于一体的教材，强调语言的交际功能。由于该书内容安排合理，题量大，题型广，很受学生欢迎。

Course description: This is a required course for Japanese majors in the second semester, aiming at improving their listening comprehension ability by providing systematic training for listening skills. The study of this course develops the students' ability to master the tactics for listening, dictation, imitation and speaking, thus laying a solid foundation for the follow-up course. The video watching material covers a wide variety of topics, ranging from general interest, discussion issues to excerpts from TV broadcasts.

编 码: FL04017

Code:FL04017

课程名称: 日语视听 II

Course Title:Audiovisual Japanese II

课程类别: 学类核心

Course category:Major Survey Course

学 分: 3

Credit(s):3

开课单位: 外国语与国际教
育学院

Offering College/School:College of Foreign Languages and
International Studies

课程描述: 本课程是面向日语专业本科二年级学生开设的学类核心课程。因为是还处于日语语言学习的初级阶段, 主要目标是在复习初级阶段的词汇语法的基础上, 培养日语听力能力的基本技能, 并有针对性的提高日语专业四级考试听力部分的解题能力, 为今后参加日语能力考试打下基础。

Course description: This course is a required course for Japanese majors, aiming at improving the basic listening skills for Japanese, based on the review of basic vocabulary and grammar. It is designed for students in the primary stage of Japanese language learning. The main focus of this course is to help students build up basic listening proficiency in Japanese as well as to improve their examination skills for Test for Japanese Majors Band-4. It also provides students with a solid foundation for future Japanese Language Proficiency Test.

编 码: FL04018

Code:FL04018

课程名称: 日语视听III

Course Title:Audiovisual Japanese III

课程类别: 学类核心

Course category:Major Survey Course

学 分: 2

Credit(s):2

开课单位: 外国语与国际教
育学院

Offering College/School:College of Foreign Languages and
International Studies

课程描述: 本课程是面向日语专业二年级学生开设的学类核心课程。主要目标是进一步提高学生日语听力能力的基本技能,并有针对性的提高日语专业四级考试听力部分的解题能力,为今后参加日语能力考试打下基础。

Course description: This course is a core curriculum course offering for second-year students majoring in Japanese. The main goal is to further improve students' basic skills of Japanese listening and problem-solving. This course is also designed to improve students' Japanese TEM4 Listening, and to lay the foundation for their future participation in the Japanese Language Proficiency Test.

编 码: FL04019

Code:FL04019

课程名称: 日语写作基础

Course Title:Japanese Writing Basics

课程类别: 学类核心

Course category:Major Survey Course

学 分: 3

Credit(s):3

开课单位: 外国语与国际教
育学院

Offering College/School:College of Foreign Languages and
International Studies

课程描述: 以学习了一年日语的大二学生为对象, 着重培养学生基本的日语写作能力, 同时通过提高学生的日语实际运用能力来提高其口语能力以及其他综合日语能力。

Course description: This course is oriented to the second-year Japanese majors. It puts emphasis on the training of basic Japanese writing ability; along with the students' improvement in language use it also scaffolds their oral and comprehensive proficiency in Japanese.



编 码: FL04020

Code:FL04020

课程名称: 日语综合写作

Course Title:Japanese Writing Integration

课程类别: 学类核心

Course category:Major Survey Course

学 分: 3

Credit(s):3

开课单位: 外国语与国际教
育学院

Offering College/School:College of Foreign Languages and
International Studies

课程描述: 以有基础日语写作经验的大二学生为对象, 在进一步提高学生的日语写作能力的同时, 通过提高学生的语言实际运用能力来提高其综合日语写作能力。

Course description: This is a compulsory course for the second-year Japanese majors. It aims to further improve the students' writing ability in Japanese, and through improvement in language use it also develops their comprehensive proficiency in Japanese writing



编 码: FL04021

Code:FL04021

课程名称: 日语时文阅读

Course Title:Japanese Journalistic Reading

课程类别: 学类核心

Course category:Major Survey Course

学 分: 2

Credit(s):2

开课单位: 外国语与国际教
育学院

Offering College/School:College of Foreign Languages and
International Studies

课程描述: 本课程通过引导学生阅读反映现代社会的政治、经济、科技、日常生活等各类日语时文, 提高学生阅读和理解日语时文的能力; 让学生了解日本社会生活及一些社会热门话题; 了解和思考当前世界、中国、日本发生的最新信息与事件; 了解和掌握日语时文体裁的特点和语言表达特点; 了解和掌握当下新概念和新问题的日语表达; 增强学生阅读的时效性和信息量。

Course description: This course is to guide students to read the essays in Japanese for current events which reflect the politics, economy, science and technology, daily life, and so on in modern society. It intends mainly to improve students' competence of reading and understanding Japanese essays for current events, help students understand the social life in Japan and some hot topics in the society, understand and reflect on the latest information and events in China, Japan, and the whole world, learn about and have a good command of the characteristics of the genres of the essays for the current events and features of Japanese language per se, understand and grasp the new expressions for the present new concepts and new problems in Japanese, and provide the students with more information and help them be exposed to the readings for current events in Japanese.

编 码: FL04022

Code:FL04022

课程名称: 高级日语 I

Course Title:Advanced Japanese I

课程类别: 学类核心

Course category:Major Survey Course

学 分: 4

Credit(s):4

开课单位: 外国语与国际教
育学院

Offering College/School:College of Foreign Languages and
International Studies

课程描述: 本课程适应国家、社会对日语人才培养的高标准。在提高学生语言知识的同时, 顾及日本社会、文化的介绍和理解, 并通过这一过程加深学生对本国文化的理解, 提高学生的思维创造及分析鉴赏能力。

Course description: This course is adapted to the country and society's high standards for talents training on Japanese, aiming at enhancing students' language knowledge and deepening their understanding about Japanese culture, thus improving students' capability of creativity, analysis and appreciation.



编 码: FL04023

Code:FL04023

课程名称: 高级日语 II

Course Title:Advanced Japanese II

课程类别: 学类核心

Course category:Major Survey Course

学 分: 3

Credit(s):3

开课单位: 外国语与国际教
育学院

Offering College/School:College of Foreign Languages and
International Studies

课程描述: 本课程适应国家、社会对日语人才培养的高标准。在提高学生语言知识的同时, 顾及日本社会、文化的介绍和理解, 并通过这一过程加深学生对本国文化的理解, 提高学生的思维创造及分析鉴赏能力。

Course description: This course is adapted to the country and society's high standards for talents training on Japanese, aiming at enhancing students' language knowledge and deepening their understanding about Japanese culture, thus improving students' capability of creativity, analysis and appreciation.



编 码: FL05054**Code:** FL05054**课程名称:** 西方哲学经典导读**Course Title:** Guided readings of classics in western philosophy**课程类别:** 专业核心**Course category:** Required Core Course**学 分:** 3**Credit(s):** 3**开课单位:** 外国语与国际教育
育学院**Offering College/School:** College of Foreign Languages and
International Studies

课程描述: 哲学本质上不是一种知识体系,而是系统的反思性批判性思维活动,因此,在研究中就不能搞教条主义,也不能在教学中采取知识灌输的方法。既然哲学应该是“批判的和革命的”,那么只有通过反思和批判,我们才能不断超越现实和自我,推动我们的认识不断达到新的水准。另一方面考虑到西方哲学的门类繁多和英语系学生的实际情况,本课程偏重于语言哲学,具体选用语言哲学名著《哲学中的语言学》作为经典必读教材。这是语言哲学较晚期重要人物万德勒的一部代表著作。万德勒是最早熟习乔姆斯基语言学的哲学家之一,充分运用了现代语言学的手段来讨论语言哲学问题;《哲学中的语言学》鲜明地反映了万德勒的特点。

Course description: This is a core course for English majors. It is designed to guide students delving into some landmark classics in the history of western philosophy, particularly the analytical tradition of philosophy. Its objectives are to help students to improve their preliminary academic capability and research ability, to broaden their horizon, and to increase their appreciation of the beauty and profundity of western philosophers in the field of philosophy of language.

编 码: FL05055

Code:FL05055

课程名称: 文学作品的语言学分析

Course Title:Linguistic Approach to Literary Works

课程类别: 专业核心

Course category:Required Core Course

学 分: 3

Credit(s):3

开课单位: 外国语与国际教
育学院

Offering College/School:College of Foreign Languages
and International Studies

课程描述: 《文学作品的语言学分析》是语言学与文学的接面课程, 运用语言学的概念与方法分析经典文学作品, 旨在实现英语语言及文学实践的紧密结合。引导学生探索语言各要素的文体作用, 从语音、词汇、短语、句法、修辞及语篇层面, 系统、全面地分析作品风格及语言现象, 从而在文学欣赏与语言经验之间建立一种联系。课程以阅读名家名作精彩片段为主, 涉及诗歌、散文、小说等多种文学体裁, 使学生更好地理解经典作品的主要艺术特色。

Course description: Exploring the interface of language and literature, The Linguistic Approach to Literary Works draws on linguistic description and insights to explore the language of literary texts, aiming for a combination of linguistics and literary practice. It guides students to probe into the stylistic function of linguistic elements from phonology, vocabulary, phrase, syntax, rhetoric to discourse. A systematic and comprehensive analysis of the style and linguistic phenomena of a literary work is expected to build a connection between literary appreciation and linguistic experience. This course discusses extracts from well-known literary works, ranging from poetry, prose to novels, enabling students to better appreciate the artistic feature of classic works.

编 码: FL05056	Code: FL05056
课程名称: 笔译基础	Course Title: Fundamentals of English-Chinese Translation
课程类别: 专业核心	Course category: Required Core Course
学 分: 3	Credit(s): 3
开课单位: 外国语与国际教育学院	Offering College/School: College of Foreign Languages and International Studies

课程描述: 《笔译基础》是为英语专业学生开设的一门学类核心课程,通过该课程的教学和相当数量的配套翻译强化练习实践,使学生能够全面掌握并熟悉运用翻译的基本方法,以及英汉两种语言、文化差异之间转换的技巧,为今后相关后续课程的学习,如中西翻译简史、中国现代文学英译鉴赏、英语文学汉译鉴赏、同声传译等,打下坚实的基础。通过翻译实践基础的整个教学过程逐渐培养学生的双语思维转换、语言翻译的能力,培养学生具有比较熟练的分析翻译目的、译文效果、确定信息重心和选择相应翻译方法的能力。课程的主要内容是翻译的标准和基本方法,具体包括:译文优劣判断标准、归化和异化、翻译的基础知识、翻译的基本技巧、翻译工具的选择与运用、翻译叛逆现象的研究等。

Course description: This is a required course for English majors, aiming at the students' mastery of the conversion between basic Sino-English differences and their improvement of translation skills thus laying a solid foundation for their study of follow-up courses such as interpretation, Chinese translation of English literature, English Translation of Chinese Literature, History of Chinese and Western Translation, Interpretation and etc. The study of this course develops the students' ability to transfer between two languages and cultures and to familiarize the criteria for a good translation, the way to establish information focus and the situation in which various translating skills shall be applied. The main contents of this course are translation criteria and translation skills, including the criteria to evaluate given translational texts, domestication and alienation, basic knowledge for learning translating, translating methods, the study of treasons, the use of various modern tools in translating and etc.

编 码: FL05057**Code:** FL05057**课程名称:** 口译基础**Course Title:** Fundamentals of Interpreting**课程类别:** 专业核心**Course category:** Required Core Course**学 分:** 3**Credit(s):** 3**开课单位:** 外国语与国际教育
育学院**Offering College/School:** College of Foreign Languages and
International Studies

课程描述: 这是为英语专业三年级本科生开设的一门专业核心课,旨在提高学生口译能力。本课程主要讲授口译的概念、历史、性质、特点、标准、过程、类型及译员必备的素质;了解口译与笔译的相同点和不同点,把笔译技能灵活地应用到口译中去;掌握口译的基本原则和技巧。教学内容包括旅游文本口译的原则与技巧、对外宣传资料口译的原则与技巧、国际关系和国际政治文本口译的原则与技巧、饮食文化文本口译的原则与技巧等;同时,理解培养短时记忆的重要性并自觉地训练自己的短时记忆能力。

Course description: As a required course for translation and interpreting majors in their third year, this course aims to introduce the concept, history, features, standards, processes, classification, and qualities of an interpreter, and help students to understand the differences between translation and interpretation, and apply the translation skills into interpreting activities, and thus students are able to improve their abilities and skills of interpreting in class performance. The main content includes the principles and skills of interpreting texts in tourism, publicity, international relationship, sports, cuisine, culture, and media, and technology and science, and a better understanding of the importance of short-term memory and the training of short-term memory in addition to note-taking skills.

编 码: FL05058	Code:FL05058
课程名称: 英美文学史	Course Title:History of British and American Literature
课程类别: 专业核心	Course category:Required Core Course
学 分: 3	Credit(s):3
开课单位: 外国语与国际教育学院	Offering College/School:College of Foreign Languages and International Studies

课程描述: 该课程主要为英语专业三年级学生开设。学生阅读过一定量的英语小说、诗歌以及戏剧文本,渴望了解英美文学的历史与传统、熟悉英美文学的发展脉络及作家作品。该课程旨在帮助学生厘清英美文学历史的基本事实,梳理英美文学形成与发展的历史背景、主要作家、主要作品、某一特定时期英美文学作品的艺术特征以及英美文学发展的意义、在世界文学中所处的地位和影响等,以达到帮助学生理解并掌握英美文学悠久的历史与传统,为英语专业学生分析、批评并欣赏英语文学文本打下坚实的基础。该课程为英语语言文学专业核心必修课,为有志于参加全国文学类研究生考试的学生提供专业指导,也为对文学、艺术及美学感兴趣的学习者提供帮助。该课程在第五学期开课,共 3 个学分,48 课时。所使用的教材为刘炳善先生主编的“十一五”国家级规划教材《英国文学简史》及常耀信先生主编的《美国文学简史》。

Course description: This course is for seniors of English majors who have read some English novels, dramas and poems in English and American literature but who want to get some exact knowledge about the history and tradition of English and American literature. This course aims to help students sort out the facts of English and American literature concerning historical backgrounds, writers, works of each period, features of the artistic works and significances of the development of English and American literature, influences and status in the world literature, purposefully help students understand and grasp the history and tradition of English and American literature, enhancing their ability of criticizing and appreciating literary works either in English and American literature or in other literary backgrounds. This course is the basis for further selected readings and criticism and appreciation of literature, and it is a required course for those who intend to participate the entrance examinations for further study and research in English and American literature. Furthermore, this course provides guidance for those who intend to develop a particular interest in literature, art and aesthetics.

编 码: FL05059

Code:FL05059

课程名称: 日本文化概论

Course Title: Introduction to Japanese Culture

课程类别: 专业核心

Course category: Required Core Course

学 分: 3

Credit(s): 3

开课单位: 外国语与国际教
育学院

Offering College/School: College of Foreign Languages and
International Studies

课程描述: 本课程是一门为日语专业学生开设的专业拓展课。课堂采用日本著名学者梅棹忠夫编著的《日本文明的 77 个关键词》为教材, 选取最能体现日本文化特色的文章进行阅读和讨论, 以加深学生对日本社会和文化形成与发展的理解, 同时使学生初步了解研究日本文化的理论和方法。

Course description: This is one of the professional development courses for Japanese majors. The book 77 Key Words of the Civilization of Japan edited by the famous Japanese scholar is used as the textbook, topics which most represent the characteristics of Japanese culture are selected for reading and discussion. The goal of this course is to enhance the understanding of the formation and development of Japanese society and culture, and meanwhile to make the students primarily understand the theories and methodologies of Japanese culture studies.

编 码: FL05060

Code:FL05060

课程名称: 跨文化交际(日语)

Course Title: Intercultural Communication (Japanese Major)

课程类别: 专业核心

Course category: Required Core Course

学 分: 2

Credit(s): 2

开课单位: 外国语与国际教
育学院

Offering College/School: College of Foreign Languages and
International Studies

课程描述: 本课程是一门为日语专业学生开设的专业拓展课。采用大量跨文化交际的实例,通过组织课堂讨论和模拟实践来提高学生的理论知识和实践能力。着重培养日语专业学生的跨文化交际意识、让学生在跨文化交际活动中掌握中日语言行为的差异点,了解日语中所蕴含的日本文化特色及由此体现出的行为方式、价值观等。

Course description: This compulsory course is specially designed for Japanese majors. The course shall improve students' theoretical knowledge and practical ability through a large quantity of examples in the field of cross-cultural communication via classroom discussion and hand-on practice. The emphasis of this course is the cultivation of the awareness of cross-cultural communication in Japanese majors, the ability of distinguishing the behavioral differences between Chinese and Japanese in daily life and understanding the particular cultural characteristics embedded in the Japanese language, and the behavioral styles and value system presented.

编 码: FL05061**Code:**FL05061**课程名称:** 交替传译(日语)**Course Title:**Consecutive Interpretation (Japanese Major)**课程类别:** 专业核心**Course category:**Required Core Course**学 分:** 3**Credit(s):**3**开课单位:** 外国语与国际教育
育学院**Offering College/School:**College of Foreign Languages and
International Studies

课程描述: 本课程是我校英语专业翻译方向学生必修的重要基础理论课程, 它能使 学生获得交替传译方面的基本概念、基本理论和基本方法, 并为学习后继课程和进一步获得口译技巧奠定必要的基础。本课程在传授知识的同时, 将通过各个教学环节逐步培养学生具有听力理解、速记和口译能力。其主要内容包括: 笔记速记法、口译技巧、各种场合口译使用的词汇和句型、中翻英和英翻中的课堂口译实践。

Course description: Consecutive Interpretation is an important basic course for students majoring in English Translation at Hunan University. After completing this course, students should be able to grasp the basic concepts, theories and principles of interpretation, and establish necessary foundation for further study. Students are expected to acquire the skills of interpretation, as well as the ability to understand different listening materials and take notes in shorthand. This course introduces the methods of shorthand, skills of interpretation, vocabulary and sentence patterns in various occasions, and interpreting practice in English and Chinese.

编 码: FL05062

Code:FL05062

课程名称: 日汉翻译

Course Title:Japanese-Chinese Translation

课程类别: 专业核心

Course category:Required Core Course

学 分: 3

Credit(s):3

开课单位: 外国语与国际教
育学院

Offering College/School:College of Foreign Languages and
International Studies

课程描述: 日汉翻译是一门实践性很强的课程, 要求学生在学习中以实践为主。

本课程主要学习日汉互译的基本理论和技巧, 增强学生对汉日两种语言表达习惯的理解, 熟练掌握日汉互译的基本技巧。

能翻译用现代日语撰写的各种文章、书籍; 借助工具书和注释能翻译一般日文古文。

Course description: Japanese-Chinese Translation is a practice-oriented course requiring students to receive practical education.

This course offers to educate students in basic theories and skills in Japanese-Chinese translation and to enhance their understanding of the linguistic habits in expressing in these two languages, so as to attain a skillful mastery of the basic methods in Japanese-Chinese translation.

Students are expected to translate various kinds of articles written in modern Japanese and general classical Japanese texts with the aid of dictionaries and notes.

编 码: FL05063	Code: FL05063
课程名称: 日本文学作品赏析	Course Title: Selected Readings of Japanese Literature
课程类别: 专业核心	Course category: Required Core Course
学 分: 3	Credit(s): 3
开课单位: 外国语与国际教育学院	Offering College/School: College of Foreign Languages and International Studies

课程描述: 这是一门为日语专业学生开设的专业核心课。根据学生刚学完两年日语, 日语理解力和阅读水平都还不高的情况, 主要选取相当易于阅读的大正时期以后作家的作品。本课程主要有以下三个方面的目标: 第一, 通过该课程的学习, 使日语专业学生阅读一批日本文学作品原著, 巩固、加强和提高大学一、二年级所掌握的日语水平。第二, 通过日本文学作品原著的阅读, 基本了解和掌握日本近现代文学作品欣赏的一般步骤和方法。第三, 了解和掌握所读文学作品的文学价值及时代特征, 为进一步系统学习日本文学史奠定基础。本课程是日语专业学生进入日本文学专业阶段学习的必修课程。

Course description: This specialized course is designed for Japanese majors who have studied Japanese for two years and who have already gained certain capacity for reading and understanding. The material will be easy-to-be-understood texts after Dazheng Period. This course aims at, firstly, developing and improving students' proficiency of Japanese by means of reading and appreciating original Japanese works; secondly, helping students get some ideas of how to review and criticize modern Japanese literary works; and thirdly, guiding students to master the characteristics and features of original Japanese literary texts, laying a solid foundation for the study of the History of Japanese Literature. This course is a required course for Japanese majors.

编 码: FL05064	Code: FL05064
课程名称: 日本文学史	Course Title: History of Japanese literature
课程类别: 专业核心	Course category: Required Core Course
学 分: 3	Credit(s): 3
开课单位: 外国语与国际教育学院	Offering College/School: College of Foreign Languages and International Studies

课程描述: 这是一门为日语专业学生开设的专业核心课。通过该课程的教学使学生系统地了解日本近现代文学发展的主要时期,以及各个时期的基本理念和代表作家、作品,并在此基础上着重培养学生对日本近现代文学发展内在规律的认识,为进一步提高对于日本文学的理解能力、深入理解日本文化打下基础。该课程突出文学的主体性和时代性,不包括以知识性为主的古代文学部分内容。该课程具有承前启后的作用,既对于前面所学的基础课程比如日本文学作品赏析等具有深化提高的作用,又是本专业的基本课程之一,是本专业学生进入日本文化、文学方向的研究生学习的基础课程。

Course description: This is a required course for Japanese major students. It enables students to gain a systematic knowledge of the main periods of Japanese modern literature history together with the basic notions, representative authors and works of each period. On top of this, this course aims to increase students' knowledge of the inherent law of the development of Japanese modern literature, and lay a solid foundation for further improving their comprehension of Japanese literature and gaining a deep understanding of Japanese culture. This course also emphasizes the subjectivity and contemporaneity of literature, excluding the ancient literature, which is mainly knowledge-based. This is a transitional course, deepening students' understanding of former basic courses such as Appreciation of Japanese Literary Works, serving as one of the fundamental courses itself and paving the way for students to pursue postgraduate studies in Japanese culture and literature.

编 码: FL05065

Code:FL05065

课程名称: 语言学概论(日语)

Course Title:Introduction to Japanese Linguistics

课程类别: 专业核心

Course category:Required Core Course

学 分: 3

Credit(s):3

开课单位: 外国语与国际教
育学院

Offering College/School:College of Foreign Languages and
International Studies

课程描述: 本课程是一门为日语专业四年级学生开设的专业核心课。选用日本著名语言学家风间喜代三等编著的『言語学』（第2版，東京大学出版社，2004）作为课堂教材，同时参考国内翟东娜、潘钧主编的《日语概论》（高等教育出版社，2008）等，通过课堂讲解、课堂讨论等形式，使学生对语言学基础知识有较为系统的了解，对日语语言有更深入的把握，并能掌握初步的分析方法，提高思辨性思维能力。

Course description: This is a core curriculum course for Japanese majors. The textbook is Linguistics (2nd edition, Tokyo University press) edited by Xi et al (2004). Some reference is also made to An Introduction to Japanese (Gaodeng jiaoyu chubanshe) edited by Qu and Pan (2008). Through lectures and in-class discussion, this course is designed to help students gain a thorough understanding of the basic knowledge of linguistics, especially Japanese linguistics and acquire some basic analytic methods, and to improve their critical thinking.

编 码: GE01012(-15)	Code: GE01012(-15)
课程名称: 大学英语	Course Title: College English
课程类别: 通识必修	Course category: Required General Education Course
学 分: 8	Credit(s): 8
开课单位: 外国语与国际教育学院	Offering College/School: College of Foreign Languages and International Studies

课程描述: 《大学英语》系列课程为面向我校非英语专业本科生的公共通识课程, 课程教学目标为提高学生的英语熟练程度、思辨能力和跨文化交际能力, 为非英语专业学生的专业课程学习打好英语语言基础。

《大学英语 1》主要包括以读写为主的综合课课堂教学和以听说为主的教师指导下基于计算机网络的自主学习两个教学环节, 主要内容为阅读与听力技巧指导、有关校园生活主题的阅读与听说实践、和基于阅读主题的通用英语写作指导与实践。通过学习本课程, 学生将在高中英语教学的基础上, 进一步获得基本的阅读和听力技巧、掌握与校园生活主题有关的思想内容和语言文化知识、提高基于相关主题的通用英语口语表达和书面表达能力。

《大学英语 2》以《大学英语 1》为先导课程, 主要包括以读写为主的综合课课堂教学和以听说为主的教师指导下基于计算机网络的自主学习两个教学环节, 主要内容为阅读与听力技巧指导、有关社会生活主题的阅读与听说实践、和基于阅读主题的通用写作指导与实践。通过学习本课程, 学生将在《大学英语 1》的基础上, 进一步获得基本的阅读和听力技巧、掌握与社会生活主题有关的思想内容和语言文化知识、提高基于相关主题的通用英语口语表达和书面表达能力。

《大学英语 3》以《大学英语 2》为先导课程, 主要包括以读写为主的综合课课堂教学和以听说为主的教师指导下基于计算机网络的自主学习两个教学环节, 主要内容为通用学术阅读与听力技巧指导、有关人文和社科主题的阅读与听说实践、和基于阅读主题的应用及通用学术写作指导与实践。通过学习本课程, 学生将在《大学英语 2》的基础上, 进一步获得基本的通用学术阅读和听力技巧、掌握与人文和社科主题有关的思想内容和语言文化知识、提高基于相关主题的通用学术英语口语表达和书面表达能力。

《大学英语 4》以《大学英语 3》为先导课程, 主要包括以读写为主的综合课课堂教学和以听说为主的教师指导下基于计算机网络的自主学习两个教学环节, 主要内容为通用学术阅读与听力技巧指导、有关自然科学主题的阅读与听说实践、和基于阅读主题的应用及通用学术写作指导与实践。通过学习本课程, 学生将在《大学英语 3》的基础上, 进一步获得基本的通用学术阅读和听力技巧、掌握与自然科学主题有关的思想内容和语言文化知识、提高基于相关主题的通用学术英语口语表达和书面表达能力。

Course description: The College English series are courses of General Education for non-English Majors, aiming at promoting the students' English language proficiency, critical thinking and cross-cultural communicative competence, so as to help students get prepared for their mainstream courses.

College English 1 consists of reading & writing classroom instruction in the multi-media classroom and the self-access listening & speaking practice in the language lab. It mainly covers the strategy training in reading and listening, theme-based reading, listening & speaking practice on campus life, and the general English writing practice on the themes of reading. By taking this course, the students will be able to, on the basis of their English learning in high school, acquire more reading and listening skills, the language and culture knowledge about campus life, and improve their skills in speaking and writing on general topics.

College English 2 consists of reading & writing classroom instruction in the multi-media classroom and the self-access listening & speaking practice in the language lab. It mainly covers the strategy training in reading and listening, theme-based reading, listening & speaking practice on social life, and the general English writing practice on the themes of reading. By taking this course, the students will be able to, on the basis of College

English 1, acquire more reading and listening skills, the language and culture knowledge about social life, and improve their skills in speaking and writing on general topics.

College English 3 consists of reading & writing classroom instruction in the multi-media classroom and the self-access listening & speaking practice in the language lab. It mainly covers the strategy training in academic English reading and listening, theme-based reading, listening & speaking practice on humanistic and social science, and the general academic English writing practice on the themes of reading. By taking this course, the students will be able to, on the basis of College English 2, acquire more academic English reading and listening skills, the language and culture knowledge about humanistic and social science, and improve their skills in speaking and writing on general academic topics.

College English 4 consists of reading & writing classroom instruction in the multi-media classroom and the self-access listening & speaking practice in the language lab. It mainly covers the strategy training in academic English reading and listening, theme-based reading, listening & speaking practice on science and engineering, and the general academic English writing practice on the themes of reading. By taking this course, the students will be able to, on the basis of College English 3, acquire more academic English reading and listening skills, the language and culture knowledge about science and engineering, and improve their skills in speaking and writing on general academic topics.



编 码: GE01063(-66)	Code: GE01063(-66)		
课程名称: 二外(日, 德, 法, 俄语)	Course Title: Second Foreign Language (Japanese, German, French, Russian)		
课程类别: 通识必修	Course category: Required General Education Course		
学 分: 8	Credit(s): 8		
开课单位: 外国语与国际教育学院	Offering College/School: College of Foreign Languages and International Studies		

课程描述: 大学日语 1 是非日语专业的二外选修课程。以日语为零基础的非日语专业的学生为主要教授对象。学生将通过每周一次、每次三学时, 一学期共四十八学时的学习时间, 掌握包含五十音图、浊音、拗音、拗浊音、促音、长音、拨音等在内的日语发音基础; 学习判断句、疑问句、否定句、选择疑问句等基本句型 and は、か、も、と、を、へ等助词; 熟记约 500 个左右的日常生活词汇和 20 个左右的基本句型; 熟悉使用有关学习、生活、工作、购物等日常领域里的基本对话等。并且, 将通过随堂听力练习与简单汉日互译练习、课堂对话等方式, 培养学生的听力基础与口语基础。另外, 将在课堂讲授里适量穿插对日本历史、传统文化与当代文化、社会等的介绍; 借助多媒体教学设备, 为学生播放相关音频与视频文件等, 以提高学生的学习兴趣, 加深他们对日本社会、文化的了解。

大学日语 2 是非日语专业的二外选修课程。以选修过大学日语 1 的非日语专业的学生为主要教授对象。学生将通过每周一次、每次三学时, 一学期共四十八学时的学习时间, 掌握日语里的形容词的分类和变化规则与相关句型; 掌握动词的分类和原形、ます形、て形、た形、ない形、简体等各种变化规则与相关句型; 学习比较句、祈使句、并列句等基本句型 and が、で、に、や、から、より等助词与もう、あまり、また、よく、どうして等副词; 在大学日语一所学词汇的基础上, 熟记约 1300 个左右的日常生活词汇和 50 个左右的基本句型; 继续熟悉使用有关学习、生活、工作、购物、旅游等日常领域里的基本对话等。并且, 将通过随堂听力练习与简单汉日互译练习、课堂对话等方式, 培养学生的听力基础与口语基础。另外, 将在课堂讲授里适量穿插对日本历史、传统文化与当代文化、社会等的介绍; 借助多媒体教学设备, 为学生播放相关音频与视频文件等, 以提高学生的学习兴趣, 加深他们对日本社会、文化的了解。

大学日语 3 是非日语专业的二外选修课程。以选修过大学日语一、二的非日语专业的学生为主要教授对象。学生将通过每周一次、每次三学时, 一学期共四十八学时的学习时间, 掌握动词的假定态、被动态、可能态、命令态、使役态等变化规则与相关句型; 学习授受、敬语等表达方式与长句、复合句等中级句型; 在大学日语一和大学日语二所学词汇的基础上, 熟记约 2000 个左右的日常生活词汇和 100 个句型; 继续熟悉掌握有关学习、生活、工作、购物、旅游等各类场景下的中级对话等。并且, 将通过随堂听力练习与汉日互译练习、课堂对话、课堂发表等方式, 全面提高学生的听、说、读、写、译五大能力。另外, 将在课堂讲授里适量穿插对日本历史、传统文化、文学与当代文化、文学、社会等的解析; 借助多媒体教学设备, 为学生播放相关音频与视频文件等, 以提高学生的学习兴趣, 促进他们对日本社会、文化的自主思考。

大学日语 4 是非日语专业的二外选修课程。以选修过大学日语一、二、三的非日语专业的学生为主要教授对象。学生将通过每周一次、每次三学时, 一学期共四十八学时的学习时间, 以日本社会、文化、历史、经济、日常等各领域内的中长篇文章为主要学习对象, 掌握一定量的专业词汇与中高级词汇和语法; 熟悉日本人的思维模式与写作模式; 在大学日语一、二、三所学词汇的基础上, 熟记约 3000 个左右的词汇和 150 个句型; 继续熟悉掌握有关学习、生活、工作、购物、旅游等各类场景下的中高级对话等。并且, 将通过随堂听力练习与汉日互译练习、课堂对话、课堂发表等方式, 全面提高学生的听、说、读、写、译五大能力。另外, 将在课堂讲授里适量穿插对日本历史、传统文化、文学与当代文化、文学、社会等的解析; 借助多媒体教学设备, 为学生播放相关音频与视频文件等, 以提高学生的学习兴趣, 加深他们对日本社会、文化的独立思考。

Course description: College Japanese 1 is an elective course for non-Japanese majors, who start to learn Japanese from zero. In one semester, students will use three hours once a week(a total of 48 hours) to master fifty tone map, dullness, bend sound, bend dullness, glottal, long tone, dial tone, etc.; to learn sentence of judgment, interrogative sentence, negative sentence, selective interrogative sentence and other basic sentence patterns and

auxiliary words like は(wa)、か(ka)、も(mo)、と(to)、を(o)、へ(he)etc.; to learn about 500 daily vocabulary and 20 basic sentence patterns; to be familiar with and use the basic dialogues about study, life, work, shopping and so on. Furthermore, we will cultivate students' listening and speaking by the practices of listening, simple translation, dialogue. In addition, we will introduce Japanese history, traditional culture and contemporary culture, society and so on in the class and play the related audio and video files, etc. for the students in order to improve their learning interest, deepen their understanding about Japanese society and culture.

College Japanese 2 is an elective course for non-Japanese Majors, who've taken College Japanese 1. In one semester, students will use three hours once a week(a total of 48 hours) to master the rules of classification and changes in the Japanese adjective and related sentence patterns; to grasp verb classification and prototype, ます(masu)type, て(te) type, た(ta) type, ない(na i) type, simplified type, etc. and related sentence patterns; to learn comparative sentence, imperative sentence, compound sentence and other basic sentence patterns. They will also learn auxiliary words like が(ga)、で(de)、に(ni)、や(ya)、から(kara)、より(yori) etc. and adverbs like もう(mo)、あまり(amari)、また(mata)、よく(yoku)、どうして(dosite)etc.. On the basis of College Japanese 1, students will learn about 1300 daily vocabulary and 50 basic sentence patterns. They will continue to be familiar with and use the basic dialogues about study, life, work, shopping and so on. Furthermore, we will cultivate students' listening and speaking by the practices of listening, simple translation, dialogue. In addition, we will introduce Japanese history, traditional culture and contemporary culture, society and so on in the class and play the associated audio and video files, etc. for the students in order to improve their learning interest, deepen their understanding about Japanese society and culture.

College Japanese 3 is an elective course for non-Japanese Majors, who've taken College Japanese 2. In one semester, students will use three hours once a week(a total of 48 hours) to master the assumed form, passive form, possible form, order form, causative form, etc. of verb and related sentence patterns; to learn expression of the giving and receiving and long sentences, complex sentences and other intermediate sentence patterns. On the basis of College Japanese 1 and 2, students will learn about 2000 daily vocabulary and 100 sentence patterns; continue to be familiar with and grasp the intermediate dialogues about study, life, work, shopping, travel and so on. Furthermore, we will improve students' listening, speaking, reading, writing and translation abilities by the practices of listening, translation, dialogue, presentation etc.. In addition, we will analyze Japanese history, traditional culture and contemporary culture, society and so on in the class and play the associated audio and video files, etc. for the students in order to improve their learning interest, promote their independent thinking about Japanese society and culture.

College Japanese 4 is an elective course for non-Japanese Majors, who've taken College Japanese 3. In one semester, students will use three hours once a week(a total of 48 hours) to study the course. By studying the medium and long articles about Japanese society, culture, history, economy, daily, etc., they will master a certain amount of professional vocabulary, intermediate and advanced vocabulary and grammar; be familiar with thinking and writing mode of Japanese. On the basis of College Japanese 1, 2 and 3, students will learn about 3000 words and 150 sentence patterns; continue to be familiar with and grasp the intermediate and advanced dialogues about study, life, work, shopping, travel and so on. Furthermore, we will improve students' listening, speaking, reading, writing and translation abilities by the practices of listening, translation, dialogue, presentation etc.. In addition, we will analyze Japanese history, traditional culture and contemporary culture, society and so on in the class and play the associated audio and video files, etc. for the students in order to improve their learning interest, deepen their independent thinking about Japanese society and culture.

课程描述： 大学德语课程的教学目标在于通过德语教学，使初学德语的学生基本掌握德语的基础语法知识，培养学生具有一定的词汇和阅读能力，同时具有初步听、说、写的能力，开始了解德国的国情，并逐步增进对德国社会文化、生活以及概况的了解，为获取所需的专业信息及进一步提高德语水平，打好语言基础。

大学德语（1）为本课程的基础阶段教学，要求学生修完大学德语（1）后初步掌握语音、语法、词汇等基础知识，即：了解德语单词的拼读规则，能够正确的拼读德语单词；通过学习简短生动的对话，在语言交流中熟悉和掌握正确的语调；能理解基本词汇意义及用法，能正确运用；能理解并基本掌握所学的语法现象。

大学德语（2）以大学德语（1）为前导课程，要求学生修完大学德语（2）后基本掌握德语语音的基础；通过掌握的某些基本句型，能进行日常用语的简单对话；初步掌握语法规则及一定的词汇量，能具有对简单题材的听、说、读、写能力，为大学德语（3）的课程学习做好准备。

大学德语（3）以大学德语（2）为前导课程，要求学生修完大学德语（3）后基本掌握基础语法知识，能理解常见的语法现象，有一定的词汇量，并具备初步的听说能力，能概括听取总体信息并在众多信息中选择听取所需信息，能用特定的和典型的语言表达方法表达一定的交际意向，为大学德语（4）的课程学习做好准备。

大学德语（4）以大学德语（3）为前导课程，要求学生修完大学德语（4）后能达到以下要求：掌握语音语调的基本知识，发音正确，语调自然；初步掌握德语的词法、句法及语篇结构方面的基础知识；能听懂浅易的德语听力材料，语言浅近的德语讲话和报告；能借助词典阅读浅近的文学读物和简短报道；能够根据提示在半小时之内写出 80 个词左右的短文；能够在大纲规定的情景、交际意向下进行日常生活交谈；具有德语国家的一般国情知识，初步了解这些国家与我国在社会、文化诸方面的差异。

Course description: College German aims to improve students' interest in learning the language and to lay a good language foundation for their further studies by teaching students basic German grammar and vocabulary, cultivating students' ability to listen, speak, read and write in German, and informing them of some social and cultural background of Germany.

College German (1) is the basic stage of the course. In this stage, students are required to master a preliminary knowledge of German pronunciation and intonation, vocabulary and grammar, namely: understand the spelling rules of German vocabulary, correctly spell out about 500 German words according to their pronunciation and meaning; have a basic grasp of German pronunciation and intonation rules, read dialogues or short passages with correct pronunciation and intonation; memorize the meaning and usage of the vocabulary learned in the semester, understand the basic knowledge of grammatical phenomena, and use them correctly.

With College German (1) as the leading course, College German (2) requires students to: grasp the basic German pronunciation rules and certain sentence structures; have the ability to carry out simple conversations with familiar topics in German; master some complicated grammatical phenomena and about 700-1000 vocabulary; apply their listening, speaking, reading and writing skills to solve simple tasks. In a word, College German (2) helps students to prepare for their College German (3) course.

With College German (2) as the leading course, College German (3) requires students to: grasp the basic German grammatical knowledge, be able to understand common grammatical phenomena, and master about 1000-1500 vocabulary; have the preliminary ability to listen and talk in German; be able to summarize the general information after listening and select the required information for listening from a large amount of information; apply specific and typical language to convey certain communicative intention. In a word, College German (3) helps students to prepare for their College German (4) course.

With College German (3) as the leading course, College German (4) requires students to: grasp the basic knowledge of German pronunciation and intonation, pronounce accurately and have a natural intonation; master the basic knowledge about German vocabulary, syntax and discourse structure; be able to understand simple German listening materials, speech and report; read simple literary books and short news report with the help of

German dictionaries; write a short passage of about 80 words within half an hour according to the directions; carry out daily conversations based on the situation and communicative intentions on the curriculum syllabus; have the general knowledge about the national conditions of German-speaking countries, and know the differences in social and cultural aspects between our country and these countries.

课程描述：大学法语 1 是为之前没有法语学习基础的初学者开设的一门通识必修课。教学使用教材为外语教学与研究出版社引进的法国阿歇特出版社出版的 *Le Nouveau Taxi* 《你好，法语》及其配套练习册。教学的目的是培养学生掌握法语基础发音、朗读技能，正确识别音素，按规则书写出单词对应的注音，听写简短法语句子，听懂基本课堂教学法语指令，日常法语问候与低难度的交流。使学生能够朗读低难度文本材料，语音、语调大体正确。能完成简单结构的句子，能按照例句简单描述个人自我介绍及日常生活活动，掌握法语语法基本概念及基本应用，具有一定听说读译能力，同时增强其自主学习能力，开阔跨文化视野，提高文化素养并为下一步进入大学法语 2 打下良好的基础。

大学法语 2 是为之前学过大学法语 1 的初学者开设的一门通识必修课。教学使用教材为外语教学与研究出版社引进的法国阿歇特出版社出版的 *Le Nouveau Taxi* 《你好，法语》及其配套练习册。教学的目的是培养学生掌握并熟练运用法语发音规则，朗读所学课文及类似难度浅易材料，进行熟悉话题的简答交流，表达比较清楚，语音、语调基本正确，能基本读懂初级难度的一般性题材的法文文章，进行个人自我介绍及日常生活活动，掌握法语语法基本概念及基本应用，进行短句法汉互译，译文基本准确，无重大的理解和语言表达错误，同时增强其自主学习能力，开阔跨文化视野，提高文化素养并为进入下一阶段的大学法语 3 打下良好的基础。

大学法语 3 课程是为之前学过大学法语 2 的初学者开设的一门通识必修课。教学使用教材为外语教学与研究出版社引进的法国阿歇特出版社出版的 *Le Nouveau Taxi* 《你好，法语》及其配套练习册。教学的目的是培养学生听懂日常法语谈话和低难度的小篇短文，能掌握其中心大意，抓住要点，能在学习过程中能逐渐使用法语提问，能做日常会话，能进行熟悉话题的简答交流，能就一般话题展开讨论，能在交谈中使用基本的会话策略，习惯法法词典的使用，能借助词典阅读题材熟悉的法文新闻，掌握中心大意，理解主要事实和有关细节，能读懂工作、生活中常见的应用文体的材料，能在阅读中使用有效的阅读方法，同时增强其自主学习能力，开阔跨文化视野，提高文化素养并为下一步进入大学法语 4 打下良好的基础。

大学法语 4 课程是为之前学过大学法语 3 的初学者开设的一门通识必修课。教学使用教材为外语教学与研究出版社引进的法国阿歇特出版社出版的 *Le Nouveau Taxi* 《你好，法语》及其配套练习册。教学的目的是培养学生听懂简单法语新闻与其它类别小短文，掌握大意，抓住要点，能适应习惯日常法语会话，能够清楚表达意见发表看法，能细化观点，能读懂长篇幅的一般难度的文字，读懂大部分日常新闻简讯及一般应用文体的读物，能借助词典对简短篇幅进行翻译，能书写简短作文，无重大语言错误，具有良好的法语学习应用习惯，熟悉各种语言学习工具的使用，拥有一定的语言学习资源，同时增强其自主学习能力，开阔跨文化视野，提高文化素养并为进一步提高法语水平打下良好的基础。

Course description: College French 1 is an obligatory subject designed for beginners. The textbook used in this course is *Le Nouveau Taxi* by French publishing house, Hachette Livre, introduced, edited and published by the press of Foreign Language Teaching and Research Press. The purpose is to help students to learn the basics of pronunciation, oral French, to recognize all the phonetic symbols, to be able to write down the phonetics of French words, to listen and note down simple French sentences, to understand the basic instructions in class and basic daily French, to reading the elementary reading materials with acceptably correct pronunciation and intonation, to write simples sentences, to follow the examples in texts to give simple self-introductions, to describe the daily routines, to grasp the basic concepts and practice of French grammar, to acquire the competence of a certain level in listening, speaking, reading and writing, and at same time to improve their learning potential, to broaden their horizon, to nourish their taste in culture, and to lay a foundation for the further improvement of French in the future.

College French 2 is an obligatory course designed for beginners. The textbook used in this course is *Le Nouveau Taxi* by French publishing house, Hachette Livre, introduced, edited and published by the press of

Foreign Language Teaching and Research Press. The purpose is to help students to learn the basics of pronunciation, oral French, to recognize all the phonetic symbols, to be able to write down the phonetics of French words, to listen and note down simple French sentences, to understand the basic instructions in class and basic daily French, to reading the elementary reading materials with acceptably correct pronunciation and intonation, to write simples sentences, to follow the examples in texts to give simple self-introductions, to describe the daily routines, to grasp the basic concepts and practice of French grammar, to acquire the competence of a certain level in listening, speaking, reading and writing, and at same time to improve their learning potential, to broaden their horizon, to nourish their taste in culture, and to lay a foundation for the next phase of further improvement of French.

College French 3 is an obligatory course designed for beginners who have taken the course of College French 2. The textbook used in this course is *Le Nouveau Taxi* by French publishing house, Hachette Livre, introduced, edited and published by the press of Foreign Language Teaching and Research Press. The purpose is to help students to be able to listen to and understand daily French conversations and short articles of low levels of hardship, to grasp the main idea and the major details, to debate and develop on common topics, to use the spoken strategies, to use French-French dictionaries, to read news articles with the help of dictionaries, to read and comprehend the reading materials for practical purposes, to read with effective methods, and at same time to improve their learning potential, to broaden their horizon, to nourish their taste in culture, and to lay a foundation for the further improvement of French in the next phase of the course College French 4.

College French 4 is an obligatory course designed for beginners who have taken the course of College French 3. The textbook used in this course is *Le Nouveau Taxi* by French publishing house, Hachette Livre, introduced, edited and published by the press of Foreign Language Teaching and Research Press. The purpose is to help students to listen to and understand brief French news reports and other short passages, to grasp their main ideas and major details, to get used to daily conversations in French, to state clearly and well elaborate one's opinions, to read longer articles of the intermediate level of hardship, to be able to read and comprehend most news reports and briefs and practical written materials, to translate and write short essays without serious mistakes short passages with the help of dictionaries, to develop a good habit of learning French, to be familiar with the using of French learning tools, to accumulate a certain amount of resources of French learning, and at same time to improve their learning potential, to broaden their horizon, to nourish their taste in culture, and to lay a foundation for the further improvement of French in the future.

课程描述：大学俄语是针对非英语专业学生开设的第二外语公共必修课，为期两年，4 个学期，累计 192 课时，共 8 学分，开设时间为第 1 至第 4 学期。大学俄语重点在于培养学生的听、说、写能力，使之掌握地道的俄语发音、可进行一定的日常生活对话、用简单句式及复合句式写普通体裁的小短文、读懂一般性题材的基础短文等，同时致力于培养学生借助词典阅读专业文章以及今后进一步主动学习俄语的语言能力。

大学俄语（1）为零起点课程，旨在为将来的俄语学习打下结实的基础。本课程主要包括语音、基础词汇、语法、阅读、对话、练习等内容。针对零起点学生，强化俄语语音及俄语语法的整体理解，认识俄语的性、数及动词变位等基本语法。通过学习本课程，学生得到较多的语音练习，获得一定的基础口语实践对话熟练度，同时接受基础语法及俄罗斯习俗讲解，使学生在提升俄语能力的同时，进一步提高学生的跨文化包容力及适应力。

大学俄语（2）以大学俄语（1）为先修课程，旨在为将来进一步俄语学习打下结实的基础。本课程主要包括语音、基础词汇、语法、阅读、对话、练习等内容。完成基础教材的 8-14 章，进一步细化学习俄语里的各种变格及基本句型等，主要加强俄语中名词变格的理解和用法。第 14 章为综合复习课。在课间休息时段加入动画片、歌曲或俄罗斯文化介绍短片等，让学生更多的了解俄文化并对俄语感兴趣。通过学习本课程，学生得到较多的语音练习，获得一定的基础口语实践对话熟练度，同时接受基础语法及俄罗斯习俗讲解，使学生在提升俄语能力的同时，进一步提高学生的跨文化包容力及适应力。

大学俄语（3）是在前一学年的基础上进行提升，这一期的内容难度明显提高，旨在为将来的硕士学业及工作中的二外俄语打下结实的基础。本课程主要包括语音、基础词汇、语法、阅读、对话、练习等内容。完成基础教材的 15-21 章，进一步学习俄语里的各种句式，复合句以及词的构成等，第 21 章为综合复习课。该学期内增加阅读理解和听力训练，旨在加强语言的运用能力。

大学俄语（4）是大学俄语的最后一期，内容难度进一步提高，并且会附加俄语四级的试题训练，旨在为将来考俄语四级做铺垫。本课程主要包括语音、基础词汇、语法、阅读、对话、练习等内容。完成基础教材的 22-28 章，进一步学习俄语里的数词、形动词及副动词的用法等，第 28 章为综合复习课。该学期内继续增加阅读理解和听力训练，增加俄语四级的习题练习，旨在进一步加强俄语的熟练运用。通过学习本课程，学生进一步熟练俄语语法，加强听力和口语表达。通过四个学期的教学，让学生掌握的词汇量达到约 1500 个单词，并比较系统地掌握俄语最基本的语法知识和基本句型。

Course description: The College Russian series are compulsory courses for non English major students, lasting for two academic years, with a total of 192 hours and 8 credits. The College Russian series mainly aim at improving the students' Russian in listening, speaking and writing, finally mastering daily life conversational skills, composing common genres of essays with both normal and complex sentences and comprehending basic texts of likewise nature, meanwhile fostering their skills to further read professional materials with the help of dictionaries and learn Russian on their own.

College Russian 1 is offered for the beginners, which may help lay a foundation for students' future learning of Russian. This course mainly covers pronunciation, basic vocabulary, grammar, reading, dialogue, practice and so on, aiming to help beginners reinforce their Russian phonetics and general understanding of Russian grammar, recognizing basics like genders, plurality and verb conjugations. By taking this course, students will get more phonetic exercise, improve their dialogue practice proficiency of basic oral English, understand basic grammar knowledge and Russian customs, so that the students can improve the capacity of Russian, and at the same time can further improve their cross-cultural tolerance and resilience.

College Russian 2, with College Russian 1 as a preliminary course, aims at consolidating the students' Russian learning. This course mainly covers pronunciation, basic vocabulary, grammar, reading, dialogue, practice and so on. Finish Chapter 8 to Chapter 14 in the basic text to further distinguish various kinds of declensions and fundamental sentences, mainly reinforcing comprehension into the usage of declensions. Chapter 14 serves as an integrated revision. Adding animation films, songs and introductory videos of Russian culture, getting students in further touch of Russian culture and in turn taking more interest in Russian. By taking this course, students will get more phonetic exercise, improve their dialogue practice proficiency of basic oral English, understand basic grammar knowledge and Russian customs, so that the students can improve the capacity of Russian, and at the same time can further improve their cross-cultural tolerance and resilience.

College Russian 3, on the basis of College Russian 1 and 2, aims at consolidating future Russian study both for a Master's program and work-related situations. This course mainly covers pronunciation, basic vocabulary, grammar, reading, dialogue, practice and so on. Finish Chapter 15 to Chapter 21 in basic texts, to further understand various kinds of forms of complex sentences and word formations, and Chapter 21 serves as an integrated revision. Reading comprehension and listening practice is added this year, to reinforce the students' language proficiency and language competence.

College Russian 4 is the last course of the College Russian series. The course being relatively more difficult, exercises for College Russian Test-4 will be added to better prepare for the upcoming CRT test. This course mainly covers pronunciation, basic vocabulary, grammar, reading, dialogue, practice and so on. Finish Chapter 22 to Chapter 28, to further understand usages of numbers, adjective verbs and adverbial verbs, and Chapter 28 serves as an integrated revision. Reading comprehension and listening practice returns, also featuring exercised for CRT-4, focusing on reinforcing proficient use of Russian. By taking this course, students could have a better command of the Russian grammar, improve listening skills and oral expressions. They will learn about 1500

words among the suggested vocabulary, and systematically master the very basis of the grammar and sentence patterns.



编 码: MS04018(19) **Code:**MS04018(19)

课程名称: 材料物理化学 **Course Title:**Physical Chemistry of Materials

课程类别: 学类核心 **Course category:**Major Survey Course

学 分: 4 **Credit(s):**4

开课单位: 材料科学与工程学院 **Offering College/School:**College of Material Science and Engineering

课程描述: 本课程是材料专业的一门重要基础课, 包含材料热力学和电化学基础两方面主要的内容。主要介绍物质(系统)在物理、化学变化过程中状态的改变及其规律; 电化学热力学、电极过程动力学等电化学性基础知识。通过本课程的学习能够认识和掌握物理化学研究问题的一些基本方法; 培养学生具备对一般性科学问题观察和思考的能力, 并且能够综合利用已有的理论、数据等知识分析、解决具体问题。为材料专业的后续课程学习和进一步了解和认识科学研究打下必要的基础。

Course description: This course is one of the important basic courses for the students in the college of materials sciences and engineering, which contain two main part of centents, i.e., thermodynamics of materials and basic concept of electrochemistry. The general rules of the material(sysetem) under physical and chemical transformation will be introduced, the basic knowledge of electrochemistry, including electrochemical thermodynamics and electrochemical kinetics will also be introduced. The goal of this course is to provide the student with the necessary physical chemistry that they need for their future career in materials science.这是面向大一新生开出的主要以介绍材料学科发展历程、构成及材料科学与工程专业的主干课程及其学习方法的专业入门课程, 以提高对专业的兴趣和学习效率, 为后续学习做好准备。

Course description: This is an introductory course for the freshman with the development and composition of the material discipline, the core curriculum and the learning methods of materials science and engineering. The opening of this course will promote students' professional interest and learning efficiency, and prepare for subsequent learning.

编 码: MS04101

Code:MS04101

课程名称: 专业入门

Course Title:Introduction of Materials Science and Technology

课程类别: 学类核心

Course category:Major Survey Course

学 分: 1

Credit(s):1

开课单位: 材料科学与工程学院

Offering College/School:College of Material Science and Engineering

课程描述: 这是面向大一新生开出的主要以介绍材料学科发展历程、构成及材料科学与工程专业的主干课程及其学习方法的专业入门课程, 以提高对专业的兴趣和学习效率, 为后续学习做好准备。

Course description: This is an introductory course for the freshman with the development and composition of the material discipline, the core curriculum and the learning methods of materials science and engineering. The opening of this course will promote students' professional interest and learning efficiency, and prepare for subsequent learning.



编 码: MS04102**Code:** MS04102**课程名称:** 材料化学基础**Course Title:** Fundamentals of Material Chemistry**课程类别:** 学类核心**Course category:** Major Survey Course**学 分:** 4**Credit(s):** 4**开课单位:** 材料科学与工程学院**Offering College/School:** College of Material Science and Engineering

课程描述: 《材料化学基础》是材料科学与工程学院学类核心课程之一,也是材料物理化学、材料科学基础、材料测试技术等课程的基础。课程内容包括无机化学和有机化学两大部分。无机化学部分主要介绍结构理论、化学平衡理论、热力学和动力学的知识,进一步从原理、规律、计算方法等方面对“四大平衡”作了深入详尽的介绍。另外,用总论介绍的基础理论结合现代科学技术在无机领域中的发展,系统地对各分族元素及其重要的单质和化合物的结构、性质、特点和在国民经济领域中的用途作详细介绍。有机化学部分,主要介绍各官能团结构、性质、制备及其相互转换和有机化学基本原理,涉及的官能团有:烷、烯、炔、卤代烃、醇、酚、醚、醛、酮、羧酸、羧酸衍生物、含氮化合物等;涉及的基本原理有:立体化学、结构解析、自由基取代、亲电加成、亲电取代、亲核加成和亲核取代等机理。

通过《材料化学基础》这门课程的学习,要使学生达到如下要求:使学生系统学习和掌握材料化学的基本原理和方法;培养学生在理解和掌握所学知识的基础上,提高学生对知识的理解和运用能力。通过对课程的讲授、集体讨论和个别辅导的教学形式,培养学生养成独立思考、综合分析、归纳总结的良好习惯,从而提高分析问题和解决问题的能力。

Course description: General Chemistry of Materials is a foundational course for the students in College of Materials and Engineering. And it is a basis course for Physics Chemistry, Basis of Materials Science et al. There are two important parts in this course. One is Inorganic Chemistry. The other is Organic Chemistry. In the inorganic part, structure theory, chemical equilibrium theory and thermodynamics and dynamics will be mainly introduced; combining the theory with practice, the “four great balances” will be made a thorough and detailed introduction from principles, rules and calculation methods. In the branch theory, combining with the development of modern science and technology in the inorganic field and the theory, the structure, properties, characteristics and using in the national economy of the sub group elements, substances and compounds will be systemically and explicitly introduced. In the organic part, the structure, properties, preparation and mutual transformation of organic groups and basic principles of organic chemistry will be mainly introduced, including alkane, alkene, alkyne, haloalkane, alcohol, phenol, ether, aldehyde, ketone, carboxylic acid, derivative of carboxylic acid, nitrogen containing compounds etc. The basic principles are composed of stereochemistry, structure analysis, free radical substitution, electrophilic addition reaction, electrophilic substitution, nucleophilic addition reaction, and nucleophilic substitution.

Through the course teaching, group discussion and individual counseling, the students' skills of independent thinking, comprehensive analysis and generalizations can be enhanced. And these good habits can improve the ability of analyzing and solving problems. It may be helpful for the undergraduates for their future scientific research or engineering work.

编 码: MS04104**Code:**MS04104**课程名称:** 材料结构基础**Course Title:**Fundamentals of Material Structure**课程类别:** 学类核心**Course category:**Major Survey Course**学 分:** 4**Credit(s):**4**开课单位:** 材料科学与工程学院**Offering College/School:**College of Material Science and Engineering

课程描述: 材料结构基础是近代材料学主要理论基础之一。量子论、波函数、价键理论、分子轨道理论以及配位场理论等,不但能用来阐明物质分子构成和原子的空间排布等特征,而且还用来阐明微观结构和宏观性能之间的联系,同时涉及物质从小分子到大分子其性质的连续变化、高分子的分子量、高分子的链的近程结构,高分子链的远程结构等内容。本课程为材料系各本科专业的一门重要基础课程,其任务是使学生掌握微观物质运动的基本规律,获得原子、分子及晶体结构的基本理论、基础知识,了解物质的结构与性能关系,了解研究分子和晶体结构的近代物理方法的基本原理,并运用其分析和解决研究中的问题。本课程将加深对前修课程,如材料科学基础、物理化学、无机化学等的有关内容的理解,并为后续课程的学习和研究打下必要的基础。

Course description: Basic Theories of Materials Structure is one of the main theoretical basis for modern material science. Valence bond theory, molecular orbital theory and ligand field theory not only can be used to clarify the material properties including the molecular composition, spatial arrangement of atoms and so on, but also the relationship between micro-structure and macroscopic performance of materials. This course is an important basic course for undergraduates studying for each branch of the material science. Its target is to make the students understand the basic rules for material movement at micro level, the basic theories and knowledge of atomic, molecular and crystal structure, understand the relationship between structure and performance of materials, and understand the basic principles of modern physics methods applied for the study on molecular and crystal structure of materials, the influence of the size of molecules on the properties of polymer, chemical composition of repeating units, short-range structure of polymer chain, long-range structure of polymer chain and conformation statistics of polymer chain, to analyze and solve problems in their further research. This course will deepen students' knowledge based on former courses, such as material science, physics, chemistry, inorganic chemistry and so on, and will lay the necessary foundations for their research as well.

编 码: MS04105

Code:MS04105

课程名称: 材料物理基础

Course Title: Fundamentals of Materials Physics

课程类别: 学类核心

Course category: Major Survey Course

学 分: 4

Credit(s): 4

开课单位: 材料科学与工程学院

Offering College/School: College of Material Science and Engineering

课程描述: 本课程是材料科学与工程专业本科生的必修课。主要介绍材料微结构的晶体学描述, 并从物理学角度阐述晶体中原子与电子的运动规律及其对材料物性的影响。讲授内容分为二个部分: (1) 晶体学基础, (2) 固体物理学。

Course description: As a compulsory course of undergraduate students majored in materials science and engineering, this course will elaborate some basic concepts and principles of crystallography and solid state physics. The teaching contents mainly consist of crystallography, lattice dynamics and electron theory of solid.



编 码: MS04106**Code:**MS04106**课程名称:** 材料科学基础**Course Title:**Fundamentals of Materials Science**课程类别:** 学类核心**Course category:**Major Survey Course**学 分:** 4**Credit(s):**4**开课单位:** 材料科学与工程学院**Offering College/School:**College of Material Science and Engineering

课程描述: 本课程是材料科学与工程各专业的一门重要的学科基础理论课程,融合了金属、陶瓷、高分子材料的基础理论,在基础课和材料各专业方向课之间起桥梁作用,通过对材料的组成、结构、性能和加工的规律及相互联系的研究,为各专业课的学习提供有关材料科学的基础知识,为后继专业课程的学习、同时为将来从事材料的研究与开发打下坚实的理论基础。

Course description: Fundamental of Materials Science is a basic course for majors of materials science and engineering, which acts as a bridge between the elemental courses and the professional courses. It is mainly lecturing the basic concepts and principles of materials science. The main contents of this course include atomic structure, crystal structures, crystal defects, solid diffusion, solidification, phase equilibrium and phase diagrams, kinetics, plastic deformation and etc.

编 码: MS04107**Code:**MS04107**课程名称:** 材料工程基础**Course Title:**Fundamentals of Materials Engineering**课程类别:** 学类核心**Course category:**Major Survey Course**学 分:** 4**Credit(s):**4**开课单位:** 材料科学与工程学院**Offering College/School:**College of Material Science and Engineering

课程描述: 本课程是材料科学与工程专业的专业核心课程, 以材料科学基础为前导课程, 为材料工程方面课程学习提供理论基础。该课程分为材料制备原理和传输原理两大部分。

第一部分: 材料制备原理, 共 32 学时。首先讲述材料工程的概念与内涵, 在此基础上分别讲述从气态、液态、可塑态和固态制备金属、无机非金属、高分子和复合材料的原理, 主要包括材料的气态生长原理、凝固原理、流变学理论、固相反应和烧结理论等, 最后介绍材料的强度设计和失效分析。

第二部分: 传输原理, 共 32 学时, 包括流体力学基础、两相运动现象、传热学基础、质量传递基础、物料干燥、燃料及燃烧等内容。

Course description: This course is a core course for the major of materials science and engineering. It is following the course of Fundamentals of Materials Science, and build the theory for the study on materials engineering. This course is decomposed as two parts: the principles of materials preparation and the principles of transmission.

Part 1: The principles of materials preparation, 32 hours. This part is including the concept and contents of materials engineering; the principles of materials preparation for metals, ceramics, polymers and composites from gases, liquids and solids; the principles of growth from gases; solidification principle; theory of rheology; reaction of solid phase and theory of sintering; strength design and failure analysis of materials.

Part 2: The principles of transmission, 32 hours. This part is including the basis of hydrodynamics, phenomenon of two phase moving, basis of thermal transmission, basis of mass transmission, drying, fuels and combustion.

编 码: MS04108**Code:**MS04108**课程名称:** 专业进展(双语)**Course Title:**Advances in Materials Science and Technology**课程类别:** 学类核心**Course category:**Major Survey Course**学 分:** 1**Credit(s):**1**开课单位:** 材料科学与工程学院**Offering College/School:**College of Material Science and Engineering

课程描述: 本课程是对已有一定的材料科学基础知识的高年级大学生介绍材料学科的最新进展及发展动态。课程为第一学期开设的专业入门的延续,以拓展学生的专业知识构架。通过对本课程的学习,学生可以及时了解材料基础研究和加工制备的发展和创新,以及材料科学领域中的新现象和新技术。同时,在课程讲述中引导学生学会有的放矢地查阅专业资料,及时获取各种材料学科的前沿信息。

Course description: The aim of this course is to introduce the developments of material science and technology to the students who have already obtained some fundamental knowledge in this field. By taking this course, students can keep abreast of the current development in both basic research and application in materials science, and have the chance to be informed about the inventions and new technologies in materials preprocessing timely. At the same time, students will be guided to search literatures in varied fields of materials researches on purpose, getting the leading-edge knowledge in time.

编 码: MS04201**Code:**MS04201**课程名称:** 专业入门**Course Title:**Introduction of Materials Science and Technology**课程类别:** 学类核心**Course category:**Major Survey Course**学 分:** 1**Credit(s):**1**开课单位:** 材料科学与工程学院**Offering College/School:**College of Material Science and Engineering

课程描述: 专业入门是面向大一新生专门设置的课程。课程的目的是使学生对所学专业有提纲挈领的了解。通过介绍材料科学与加工技术的发展历程、材料领域学科构成及实地参观和实例讲解分析,提高新生对专业的了解和学习兴趣,为后续具体的专业课程学习做好准备。

Course description: This curriculum is specially set up for the freshman in the first semester. The aim of the course is to explain students the knowledge framework of materials formation and processing, which is the special field for study in the next four years. By introducing the varied fields in materials research, the development of both materials science and materials processing, as well as visits in industries and explain the production process on site, the interest in professional knowledge will be induced in students. This course will lay a foundation for the subsequent specific professional courses.

编 码: MS04202**Code:**MS04202**课程名称:** 冶金传输原理**Course Title:**Metallurgy Transport Principle**课程类别:** 学类核心**Course category:**Major Survey Course**学 分:** 4**Credit(s):**4**开课单位:** 材料科学与工程学院**Offering College/School:**College of Material Science and Engineering

课程描述: 工程流体力学与传热学阐述了冶金过程中化学过程和物理过程中物质传递的基本原理, 内容包括动量传输、热量传输和质量传输。传输原理在冶金过程中的应用, 使冶金中有些物理过程得到深入而准确的解析。从本质上找到问题之间的相互联系, 列出物理模型和数学模型, 通过计算机来求得精确的答案。学习传输原理可以使我们深入了解复杂的反应过程中各因素影响机理, 从而改进操作和设备, 提高控制 and 设计水平。为我们提供物理模型和数学模型, 引用计算机来求解许多课题, 使我们可以计划预测, 及时控制, 以求得最佳的经济效益。随着传输原理学科发展, 它所能解决的问题越来越多, 成为工程技术人员和科研人员得力的工具。

Course description: Engineering fluid mechanics & heat transfer expounds the basic transfer principle in the chemical process and physical process of metallurgical process. The content includes the momentum transfer, heat transfer and mass transfer. With the application of transfer principle in metallurgical process, some physical processes in the metallurgy are analyzed thoroughly and accurately. We can find the interconnected relationship between problems essentially, list the physical model and mathematical model, and get accurate answer by the computer. By learning transfer principle, we can deeply understand the influence of various factors in the complex reaction process, and then improve operation and equipment to improve the level of control and design. At the same time, learning transfer principle provide us with physical model and mathematical model, so we can solve many issues by computer, by which we can predicted to plan, control timely, and achieve the best economic benefits. With the development of transfer principle, it can solve more and more problems and become an effective tool to engineers and researchers.

编 码: MS04203**Code:**MS04203**课程名称:** 材料成形机械设计原理**Course Title:**Mechanical design theory for material processing**课程类别:** 学类核心**Course category:**Major Survey Course**学 分:** 4**Credit(s):**4**开课单位:** 材料科学与工程学院**Offering College/School:**College of Material Science and Engineering

课程描述: 通过材料机械设计的学习,使学生掌握关于机构的结构分析、机构的运动分析、受力分析和机器动力学方面的基本理论和基本知识,并具有初步的分析和设计能力。掌握通用机械零件的设计原理、方法和机械设计的一般规律,具有设计一般通用零部件和一般机器装置的能力,逐渐形成规范的设计思想和逻辑思维能力;具有运用标准、规范、手册和查阅有关技术资料的能力。培养学生掌握机械设计的基本理论、基本方法、基础知识和具备一定的机械设计基本技能。通过课程设计,综合运用所学理论知识,培养学生设计并分析机械系统的实际工作能力。

Course description: Principle of Materials Processing and Mechanical Designing is a core course of near-mechanical majority. This course is designed to help foster development and application of the skills of Engineering tools used to achieve the goal include motion simulation software and general-purpose mathematical software. And also help students to matrix methods becoming meaningful when applied to equations describing velocities and accelerations in a spatial linkage. The skills learned in studying the kinematics and dynamics of machinery are carried forward ,even to unrelated course and to engineering practice. The other aim of the course is to master the general machinery parts design principles, methods and mechanical design general rule, with the ability to design generally simple machines; and learn to use applicable standards, manuals, and other technical information atlas ability; grasp typical mechanical parts of the design method. Develop students' creative thinking awareness of analyzing and solve practical engineering problems. In the overall quality of personnel training plays a very important role. So its teaching quality directly affects the students into society.

编 码: MS04204**Code:**MS04204**课程名称:** 工程热力学**Course Title:**Engineering Thermodynamics**课程类别:** 学类核心**Course category:**Major Survey Course**学 分:** 4**Credit(s):**4**开课单位:** 材料科学与工程学院**Offering College/School:**College of Material Science and Engineering

课程描述: 工程热力学是能源动力、机械、航空航天、化学工程等专业的一门重要技术基础课, 而且在许多工程领域中有广泛应用。本课程研究能源转换、利用, 特别是热能转换成机械能的原理、途径、规律及提高转换效率的方法。主要内容有: 热力学能、功和热; 热力学第一定律; 能量的可用性、熵和热力学第二定律; 理想气体和水蒸气的性质; 热力过程和热力循环的分析。本课程学习可培养学生科学的抽象、简化、分析的能力, 解决工程上热能利用的简单问题。本课程为本校机械工程、动力工程、核工程、材料工程、航空航天工程、化学工程、环境工程及暖通工程等专业的学生的学习课程。

Course description: Engineering thermodynamics is one of the most important elementary courses for the majors of energy power engineering, mechanical engineering, aerospace engineering chemical engineering etc, and is widely used in many engineering fields. It focuses on principles, approaches, rules and methods to improve energy conversion efficiency for energy conversion and utilization, especially thermal energy conversion to mechanical energy. The main contents are: the thermodynamic energy, work and heat; the first law of thermodynamics; energy availability, entropy and the second law of thermodynamics; ideal gas and water vapor properties; thermodynamic process and cycle analysis. The students' scientific ability including abstract, simplified, analysis and solving simple problems of engineering heat utilization can be trained by learning this course. The course is the learning course for professional students including mechanical engineering, power engineering, nuclear engineering, material engineering, aerospace engineering, chemical engineering, environmental engineering and HVAC engineering, etc.

编 码: MS04205	Code:MS04205
课程名称: 材料工程基础 B	Course Title:Basic of Materials Engineering (B)
课程类别: 学类核心	Course category:Major Survey Course
学 分: 4	Credit(s):4
开课单位: 材料科学与工程学院	Offering College/School:College of Material Science and Engineering
课程描述: 本课程为材料成型与控制工程专业的专业核心课, 以材料科学基础 B 为先导课程, 为后续的材料制备与成形方面的课程学习提供相应理论基础。	

本课程主要包括首先介绍材料工程的概念和内涵、然后分别介绍材料气态成型原理、材料液态成型原理、材料固态成型原理、材料半固态成型原理以及粉末体材料的成型原理, 最后简单介绍一下常见材料的力学性能设计和失效分析。

学生需要通过本课程的学习了解以金属材料为主的各种工程材料的成型过程中常见的各种基本规律, 理解各种常见的材料成型过程中材料的物理化学性质变化, 掌握材料成型过程中的基本科学原理和技能, 并能灵活应用到后续的课程学习和生产实践中。通过学习本课程, 使学生在获得较广泛的材料工程基础理论知识的同时, 锻炼和提升学生运用所学理论知识分析和解决材料工程实际问题的能力、培养学生的工程研究和创新意识。

Course description: This course is a professional education course of the specialty of material forming and control engineering. Fundament of material science B is the header course for this course, and it could provide the corresponding theoretical foundations for the follow-up course about fabrication and forming process of materials.

Firstly, this course introduces the concept and meaning of Materials Engineering. Then it introduces the forming principle of gaseous materials, the forming principle of liquid materials, the forming principle of solid materials, the forming principle of semi-solid materials and the forming principle of powder materials, respectively. Finally, it simply introduces the Mechanical design and failure analysis of common materials.

By learning this course, students should know various common fundamental laws in the forming process of various engineering materials, which are given priority to with metal materials, understand the chemical and physical properties change of materials in the forming process of various common materials, master the basic scientific principle and skills about materials processing engineering, and can apply theory to learning of follow-up courses and production practice. By learning this course, the students not only can acquire extensive basic knowledge about materials processing engineering, but also improve their ability to analyze and solve problems independently, lay a solid foundation for the future work, and cultivate their engineering research and innovation consciousness.

编 码: MS04206**Code:**MS04206**课程名称:** 材料科学基础 B**Course Title:**Fundamentals of Materials Science B**课程类别:** 学类核心**Course category:**Major Survey Course**学 分:** 4**Credit(s):**4**开课单位:** 材料科学与工程学院**Offering College/School:**College of Material Science and Engineering

课程描述: 材料科学基础 B 是材料成型及控制工程专业的一门专业基础课, 在基础课和专业课之间起到桥梁作用。只有在修完本课程之后, 才能进入专业课的学习。通过对材料的组成、结构、性能和加工规律及相互联系的研究, 为各专业课的学习提供有关材料科学的基础知识, 为后继专业课程的学习、同时为将来从事材料的研究与开发打下坚实的理论基础。

Course description: Fundamental of Materials Science B is a basic course for majors of materials forming and control engineering, which acts as a bridge between the elemental courses and the professional courses. It is mainly lecturing the basic concepts and principles of materials science. The main contents of this course include crystal structures, crystal defects, solid diffusion, solidification of metals and alloys, phase equilibrium and phase diagrams, kinetics, plastic deformation and etc.

编 码: MS04207**Code:**MS04207**课程名称:** 专业进展(双语)**Course Title:**Professional development**课程类别:** 学类核心**Course category:**Major Survey Course**学 分:** 1**Credit(s):**1**开课单位:** 材料科学与工程学院**Offering College/School:**College of Material Science and Engineering

课程描述: 本课程是对已有一定的材料科学及加工成型的基础知识的高年级大学生介绍材料学科的最新进展及发展动态。本课程为第一学期开设的专业入门的延续, 是一门拓展专业知识构架的课程。通过对本课程的学习, 使学生及时了解材料基础研究, 材料加工制备的发展和创新, 以及材料领域中的新现象和新技术。同时引导学生学会有的放矢地查阅专业资料, 及时获取各种材料学科的前沿信息。

Course description: The aim of this course is to introduce the developments of material science, technology and processing to the students who have already obtained some fundamental knowledge in these fields. By taking this course, students can keep abreast of the current development in both basic research and application in materials science, and have the chance to be informed about the inventions and new technologies in materials preprocessing timely. At the same time, students will be guided to search literatures in varied fields of materials researches on purpose, getting the leading-edge knowledge in time.

编 码: MS05101**Code:**MS05101**课程名称:** 材料测试技术**Course Title:**Analysis and Testing Technology of Materials**课程类别:** 专业核心**Course category:**Required Core Course**学 分:** 5**Credit(s):**5**开课单位:** 材料科学与工程学院**Offering College/School:**College of Material Science and Engineering

课程描述: 本课程是为材料科学与工程和相关专业学生开设的材料（物质）组织结构分析测试方法的专业基础课，内容包括 X 射线衍射分析、电子显微分析、热分析和光谱分析。课程教学目标是使学生了解材料测试中常用的技术方法，认知 X 射线衍射分析、电子显微分析和其它分析手段的技术原理和相应仪器的基本结构，掌握利用这些仪器对材料的结构、显微组织及微区成份进行测试和分析的方法，为完成毕业论文和今后从事材料科学研究或材料微观检测工作打下基础。

Course description: This is a core course for the students major in materials science and engineering. It is about analytical methods of materials (matter), consisting of X-ray diffraction, electron microscopy, thermal analysis and spectrum analysis. Curriculum teaching goal is to make the students understand the commonly used material testing techniques; master the basic principles of X-ray diffraction analysis, electron microscopic analysis and other characterization methods, as well as the structures corresponded instruments; apply these materials testing techniques to analyze the structure, morphology, microstructure and local chemical composition of materials. This course will lay a solid basis for the students to both complete their graduation thesis and engage in materials science research and materials micro analysis in the future.

编 码: MS05102**Code:**MS05102**课程名称:** 材料性能学**Course Title:**Mechanical Properties of Materials**课程类别:** 专业核心**Course category:**Required Core Course**学 分:** 4**Credit(s):**4**开课单位:** 材料科学与工程学院**Offering College/School:**College of Material Science and Engineering

课程描述: 本课程是材料科学与工程专业一门重要的专业基础课程, 系统讲述材料的各种力学、热学、光学、电学、磁学等性能及这些性能的主要应用领域, 介绍各类材料表现出来的宏观性质、破坏形式、与其内部组成和结构的变化规律, 讲述材料各种宏观物理和化学性能的定义、测试和评价方法, 改善材料性能的途径, 以及材料不同性能之间的相互作用规律。

通过本课程的学习, 学生应掌握材料的各种性能对应的物理意义, 单位及相关参数, 以及这些参数如何用于解决材料在服役过程中所面临的问题; 理解材料性能和其组成、微观结构、制备工艺和服役性能之间的关系, 为正确选择和使用材料、优化材料性能、探索新材料和新工艺打下理论基础, 并具备一定的实践能力, 同时学生应能根据材料服役性能的实际要求, 正确选择制备材料所需的原料和基本制备工艺, 并会对材料的性能进行优化。

Course description: It is an important course for the major of Materials science and engineering, describing the mechanical, thermal, optical, electrical, magnetic properties of Materials and their application, also it introduces the macroscopic properties, failure behaviors, and variety rules of the internal structure for all kinds of materials. Finally, the content of this course also includes the definitions for the macroscopic physical and chemical properties of Materials, the related test and evaluation methods, the ways of improving material properties and the interaction laws between different properties of the materials.

Through learning this course, Students must understand the physical meaning of all kinds of properties, unit and their application in solving practical problems; to ascertain relation between the properties, composition, microstructure and service properties, the students will get the theoretic basis for the correct selection and use of materials, exploring new materials, new properties and new technology, also this basis can help students to understand the relationship between the raw materials, preparation process, properties and microstructure of materials.

编 码: MS05103**Code:**MS05103**课程名称:** 材料制备工艺及装备**Course Title:**Processing and Equipment of Material Preparation**课程类别:** 专业核心**Course category:**Required Core Course**学 分:** 4**Credit(s):**4**开课单位:** 材料科学与工程学院**Offering College/School:**College of Material Science and Engineering

课程描述: 这是一门为材料科学与工程专业学生开设的专业核心课,学生在已经学习了《材料科学基础》、《材料工程基础》等课程基础上,进一步学习本课程。通过该课程的教学,使学生能够掌握金属、陶瓷、高分子材料制备的主要工艺与方法,包括单晶、薄膜、非晶、复合材料的制备,金属液态和固态成形工艺,结构陶瓷和功能陶瓷制备工艺,热塑性和热固性高分子材料制备工艺等的主要制备工艺和方法,为学生后续课程实验及毕业论文打下必不可少的基础。

Course description: : Material preparation process and methods” is one of the professional core courses for school students of Material Science and Engineering. The students further study this course on basis of learning “Foundation of materials science” and “Foundation of materials engineering” . From this course, students can grasp the main production process and preparing methods of the metallics, ceramics, polymer materials, mainly including the preparation of single crystal, thin films, amorphous and composite materials, the liquid and solid forming technology of metallics, the fabrication techniques of structural ceramics and functional ceramics, the preparation process of thermoplastics and thermosets. This course also prepares students for their subsequent courses experiment and the graduation thesis.

编 码: MS05104	Code:MS05104
课程名称: 先进装备材料	Course Title:Advanced Materials for Equipment Manufacturing
课程类别: 专业核心	Course category:Required Core Course
学 分: 2	Credit(s):2
开课单位: 材料科学与工程学院	Offering College/School:College of Material Science and Engineering

课程描述: 先进轻量化装备材料是材料科学与工程专业一门重要的专业核心课程, 课程内容分为铝合金和碳纤维及其复合材料两大部分。其中, 铝合金部分主要阐述铝合金的分类, 力学性能、物理性能和化学性能, 铝合金的性能与其微观结构的关系等; 碳纤维及其复合材料部分主要阐述碳纤维的发展历史与分类, 碳纤维的制备工艺与装备, 碳纤维的结构与性能, 碳纤维增强复合材料的分类及其制备方法, 碳纤维及其复合材料的应用等。

通过本课程的学习, 学生应了解铝合金和碳纤维及其复合材料的类型、制备方法、特性及用途, 理解铝合金和碳纤维及其复合材料的各种性能与其组成、微观结构、制备工艺和服役性能之间的关系, 掌握铝合金和碳纤维及其复合材料的改性及性能优化的方法和途径, 为提高铝合金和碳纤维及其复合材料的性能, 探索新材料和新工艺奠定理论基础。

Course description: Advanced materials for light-weight equipments: Main contents are focused on the aluminum alloys and carbon fibers, involving their application categories, mechanical, physical and chemical properties, microstructure as well as its relationship with property, and other aspects.

Through this course, the students will get acquainted with the types, preparation methods, properties and applications of the aluminum alloys and carbon fibers as well as their composites. This course can also help students to understand the relationship between chemical composition, microstructure, preparation process and service performance of the aluminum alloys and carbon fibers plus their composites. After the study of this course, the students can master the current methods and ways for improving the properties of the aluminum alloys and carbon fibers as well as their composites. In addition, this course will widen students' theoretical fundamentals in terms of new materials and new fabrication technologies.

编 码: MS05105	Code:MS05105
课程名称: 功能材料	Course Title:Functional Materials
课程类别: 专业核心	Course category:Required Core Course
学 分: 2	Credit(s):2
开课单位: 材料科学与工程学院	Offering College/School:College of Material Science and Engineering
课程描述: 本课程是材料科学与工程专业的专业核心课程, 以材料科学基础、材料工程基础和材料性能学为前导课程, 为选修课程的选择和学习提供基础。	

本课程主要包括电性材料、磁性材料、光学材料、储氢材料、功能转换材料、智能材料、梯度功能材料、生物医学和功能薄膜材料等内容, 学生需了解功能材料的特点和发展概况, 理解各种功能材料的基本概念、基本原理、结构和性能的关系, 掌握功能性能特点、制备方法、应用原理以及功能材料设计与开发的基本方法, 并能灵活运用功能材料的特性等。通过学习本课程, 学生学会分析和解决问题的能力, 获得初步选择和利用典型功能材料的能力, 锻炼和提升理论与实际相结合的能力, 文献查阅、分析总结的能力等。

Course description: This course is a professional core courses in materials science and engineering, science foundation of materials science, materials engineering and material properties for leading courses, and provide a basis for the choose of elective courses to choose.

This course mainly includes electric materials, magnetic materials, optical materials, storage hydrogen material, function conversion materials, intelligent materials, gradient functional materials, biomedical and functional thin film materials. Through learning this course, students are required to understand the characteristics, development of functional materials, the basic concepts of a variety of functional materials, basic principle, structure and performance of the relationship, preparation method, application principle, functional materials design and development, and flexibility in the use of the function of the material properties. By learning this course, students learn to analysis and problem solving ability obtains the preliminary selection and utilization of the typical functional materials, exercise and enhance theoretical and practical combination of skills, literature review, analysis of the ability to summarize.

编 码: MS05106	Code: MS05106
课程名称: 工程材料学	Course Title: Engineering Materials
课程类别: 专业核心	Course category: Required Core Course
学 分: 2	Credit(s): 2
开课单位: 材料科学与工程学院	Offering College/School: College of Material Science and Engineering
课程描述: 本课程是关于工程材料的基础理论与工程应用, 主要内容包含了金属材料、高分子材料、陶瓷材料及复合材料, 为材料学及材料加工专业的一门重要的专业课程。	

通过金属材料方面内容的学习, 使学生掌握钢铁和有色金属的合金化基础理论、了解合金钢、铸铁和有色合金材料的性能与用途。一方面使学生从理论上掌握合金元素在碳钢和有色合金中的作用规律, 为研究与开发不同用途的合金钢和有色合金奠定理论基础; 另一方面使学生能够熟练地应用材料科学基础、材料工程基础和金属力学性能的基本知识来解决合金钢和有色合金中存在的物理冶金问题; 特别是通过了解常用金属材料成分、组织结构、热处理工艺与性能的关系使学生具备合理的选择材料和使用材料的基础知识、控制材料性能的基本途径, 以及根据零件服役条件和性能要求合理地制定零件的加工工艺能力。

通过高分子材料、陶瓷材料方面内容的学习, 使学生了解高聚物、陶瓷材料的结构、性能和加工工艺, 熟悉常用工程塑料、陶瓷材料, 掌握其主要品种、制备方法及应用。

Course description: This is an important basic course about the basic theories and project applications of engineering materials for majors of Materials and Process Engineering. The main contents include metal material, macromolecule material, ceramic material and composite materials.

The content about metal materials aim at the students' mastery of the basic alloying concepts and theories, properties and applications of the alloy steels, cast iron and nonferrous metals. On one hand, the study of this course make students grasp the function law of alloying element in steels and nonferrous metals theoretically, establish the theoretical foundations for students to develop or to utilize the various metal materials for different applications. On the other hand enable students to employ the fundamental knowledge about material science and engineering, material mechanics performance to solve the physics metallurgical problem existing in alloy steel and nonferrous metal materials. Furthermore, the study the relations of the composition and structure, performance and heat treatment processes can develops the students' ability to analyze and solve practical problems, to Select suitable materials correctly and to establish technological process according to the practical requirement.

The study of the macromolecule materials, ceramic materialsd make students understand the structure, performance and preparation methods of high polymer, ceramic materials, and have the ability to choose daily engineering plastics, ceramic materials for use.

编 码: MS05201**Code:**MS05201**课程名称:** 液态成形原理 A**Course Title:**Principles of Liquid Forming A**课程类别:** 专业核心**Course category:**Required Core Course**学 分:** 3**Credit(s):**3**开课单位:** 材料科学与工程学院**Offering College/School:**College of Material Science and Engineering

课程描述: 本课程是金属材料 and 材料成型及控制工程专业的专业核心课程, 以《材料科学基础》、《物理化学》等课程为前导课程, 为铸造、焊接等方面课程学习提供基本理论知识。

本课程主要包括凝固热力学与动力学、凝固过程中的传热、传质及液体流动、凝固组织的形成及控制等内容, 学生需了解液态金属的结构、性质和近年来国内外在这些方面研究的新理论、新进展, 理解液态金属和合金的化学冶金原理, 掌握凝固和结晶的基本规律和过程、结晶组织及其凝固控制方法和缺陷的形成机理及预防措施等。通过学习本课程, 学生获得较广泛的金属凝固与控制技术方面的基础知识, 锻炼和提升学生分析和解决材料制备方面问题的基本能力, 为后续课程的学习和从事新型材料的开发及其应用研究工作奠定理论基础。

Course description: This course is a professional core courses of metal materials and material forming and control engineering professional, based on "the materials science ", "physical chemistry" course for leading, for casting, welding and so on course provides the basic theory of knowledge.

This course mainly includes in thermodynamics and kinetics of solidification, heat transfer, mass transfer and fluid flow of in the process of solidification , the formation and control of solidification Organization , etc, students need to understand the structure and properties of liquid metal and In recent years at home and abroad in the new theory, new progress in the study of these aspects, understanding chemical metallurgy principle of liquid metals and alloys, to master the basic rule and the process of solidification and crystallization, crystal structure and its control method and the defects formation mechanism of solidification and preventive measures, etc. By learning this course, the student to obtain a wide range basic knowledge of metal solidification and control technology, exercise and enhance students' the basic ability of analysis and to solve the problem of material preparation, lay a theoretical foundation for subsequent courses learning and engaged In work in the development of new materials and its application research .

编 码: MS05202**Code:**MS05202**课程名称:** 材料测试技术 B**Course Title:**Materials Testing Technology B**课程类别:** 专业核心**Course category:**Required Core Course**学 分:** 4**Credit(s):**4**开课单位:** 材料科学与工程学院**Offering College/School:**College of Material Science and Engineering

课程描述: 本课程是为材料科学与工程和相关专业学生开设的材料（物质）组织结构分析测试方法的专业基础课，内容包括 X 射线衍射分析、电子显微分析、热分析和无损检测。课程教学目标是使学生了解材料测试中常用的技术方法，认知 X 射线衍射分析、电子显微分析和其它分析手段的技术原理和相应仪器的基本结构，掌握利用这些仪器对材料的结构、显微组织及微区成份进行测试和分析的方法，为完成毕业论文和今后从事材料科学研究或材料微观检测工作打下基础。

Course description: This is a core course for the students major in materials science and engineering. It is about analytical methods of materials (matter), consisting of X-ray diffraction, electron microscopy, thermal analysis and Non-destructive examination. Curriculum teaching goal is to make the students understand the commonly used material testing techniques; master the basic principles of X-ray diffraction analysis, electron microscopic analysis and other characterization methods, as well as the structures of corresponded instruments; apply these materials testing techniques to analyze the structure, morphology, microstructure and local chemical composition of materials. This course will lay a solid basis for the students to both complete their graduation thesis and engage in materials science research and materials micro analysis in the future.

编 码: MS05203**Code:**MS05203**课程名称:** 材料力学性能**Course Title:**mechanical properties of materials**课程类别:** 专业核心**Course category:**Required Core Course**学 分:** 2**Credit(s):**2**开课单位:** 材料科学与工程学院**Offering College/School:**College of Material Science and Engineering

课程描述: 本课程是金属材料与材料成型与控制专业的专业核心课程,以材料科学基础等为前导课程,为工程材料方面课程学习提供理论指导。本课程主要包括金属材料力学性能及表征、材料在各种服役条件下的失效现象及微观机理、力学性能指标的本质、物理概念和实用意义,以及各种力学性能指标间的相互关系等内容。学生需了解力学性能指标的物理意义和测试方法,理解这些指标之间的相互关系以及内在因素(材料成分、组织、状态)和外在因素(应力状态、加载速度、温度、环境介质)对它们的影响,掌握提高金属力学性能的方向和途径。通过本课程的学习,学生获得材料力学性能方面的基本概念和知识,掌握金属力学性能指标的测试技术,锻炼和提升力学性能测试方面的基本能力等。

Course description: This course is a key course for major of metal material or material forming and control. It requires students to study material science foundation or metal principle first and provides help to study engineering material further. The course mainly includes mechanical properties and characterization of metallic materials, materials failure phenomenon under various conditions of service and the microscopic mechanism, mechanical properties of nature, physical concepts and practical significance, and the relationship between the various mechanical properties, etc. Students need to understand the mechanical properties of the physical meaning and testing methods, to understand the relationship between these indicators as well as internal factors (material composition, organization, state) and external factors (stress state, loading speed, temperature, ambient media) on them the impact of improving the mechanical properties of metals grasp the direction and approach. Through this course, students acquire knowledge of the basic concepts and mechanical properties of materials, master metal mechanical properties testing technology, the ability to exercise and enhance the mechanical properties of the basic testing and so on.

编 码: MS05204**Code:**MS05204**课程名称:** 金属塑性加工原理**Course Title:**Principles of metals plastic Processing**课程类别:** 专业核心**Course category:**Required Core Course**学 分:** 4**Credit(s):**4**开课单位:** 材料科学与工程学院**Offering College/School:**College of Material Science and Engineering

课程描述: 阐明金属塑性加工的力学基础,对变形过程进行应力应变分析和变形力、变形功率计算,探讨变形过程应力应变规律与主要影响因素。阐明金属塑性变形的物理本质,金属塑性变形的宏观规律,金属加工中的摩擦与润滑,金属的塑性与变形抗力,金属的断裂,金属在塑性变形中组织性能变化及其控制的基本原理。为改善金属材料的加工性能,合理选择加工条件,以及通过塑性变形和热处理手段来改变组织结构,从而为分析和制定金属压力加工的合理工艺提供理论依据。为合理设计和选择加工设备、制定加工工艺,设计工模具,提高制品质量及开发新产品和新工艺提供科学依据。也为改进和开发新的塑性加工工艺明确方向。

Course description: It aims to clarify the mechanics fundamentals of metals plastic working,analyze stress-strain relation during plastic deformation, calculate deformation force and deformation power, explore the stress-strain relation and the main effect factors. It clarifies the physical nature of metals plastic deformation, macro-laws of metals plastic deformation, friction and lubrication during metals working, metal ductility and deformation resistance, fracture, basic principle of transforming and control on microstructures and properties. Chose reasonable processing conditions to improve the processing properties of metallic materials and change microstructures by means of plastic deformation and heat treatment which can provide the theory basis for analysis and making reasonable processing technological process of metals press working. It provides scientific basis for reasonably designing and equipments choosing, making reasonable processing technological process, the mold design, and improvements of the product quality and the developments of new products and processes, it also creates a sense of direction for improvement and exploitation of new plastic processing technological process.

编 码: MS05205**Code:**MS05205**课程名称:** 金属材料及热处理**Course Title:**Metal Materials and Heat Treatment**课程类别:** 专业核心**Course category:**Required Core Course**学 分:** 4**Credit(s):**4**开课单位:** 材料科学与工程学院**Offering College/School:**College of Material Science and Engineering

课程描述: 《金属材料及热处理》是金属材料专业的专业核心课程。课程安排在学习完《材料科学基础》、《物理化学》等课程并对专业有一定的认识之后进行授课。本课程的教学目的在于使学生熟悉碳钢、合金钢、铸铁和有色金属的成分、组织结构、性能及应用,掌握固态相变的类型,金属材料在加热、保温和冷却过程中固态相变的基本原理和变化规律,以及金属材料的成分、组织结构和性能之间的关系;掌握影响金属材料热处理相变的热力学和动力学及其影响因素,掌握金属材料退火、正火及淬火、回火工艺的制定原则;了解金属材料的表面淬火及化学热处理规范;了解金属材料的设计与选材方法;并适当反映近年来国内外在这些方面研究的新理论、新进展,为后续课程的学习和从事金属与合金的研究打下理论基础。

Course description: Metal Materials & Heat Treatment is one of the core courses for students majoring in materials shaping and control engineering, which is lectured when such courses as Fundament of Materials Science and Physical Chemistry have been studied by them. Metal Materials & Heat Treatment mainly consist of two parts: metal materials including iron steel, cast iron and nonferrous metals and heat treatment. In this course, up-to-date state on design and application of metal materials and their heat treatment would be presented, and the relationship among composition, microstructure and properties of commonly used metal materials is well understood by learners, so is the fundamental of solid-state phase transformation of metals in heating or cooling processes as well as the principles of design and choice of heat treatment for metal materials. Metal Materials & Heat Treatment would not only establish sound theoretical basis for learners to engage in future other courses study and research activities on/in advanced metal materials, but also develop their abilities of design and choice of metal materials and their heat treatment processes as well as solving problems faced in real production.

编 码: MS05206**Code:**MS05206**课程名称:** 金属塑性加工工艺学**Course Title:**Process of Metal Plastic Processing**课程类别:** 专业核心**Course category:**Required Core Course**学 分:** 2**Credit(s):**2**开课单位:** 材料科学与工程学院**Offering College/School:**College of Material Science and Engineering

课程描述: 金属塑性加工工艺学是一门为材料科学与工程、材料成型及控制等专业学生开设的专业核心课。该课程以金属塑性加工原理为前导课程,为后续课程实验、毕业论文设计和研究生阶段的课程学习提供基础。课程主要内容包括金属轧制技术、金属挤压技术、金属拉拔技术和金属塑性加工新技术等,学生需了解金属材料塑性成型的主要方法及设备,理解各种成型方法的基本原理和特征,掌握金属管、棒、板、带、线、型材等的生产工艺流程,并能灵活运用基本原理来分析各种成形缺陷。通过本课程的学习,逐渐培养学生学以致用思想,获得从事金属材料制备及成形相关工作的基本技能,锻炼和提高分析问题、解决问题的能力,为以后的科研、工作打下坚实的专业理论基础。

Course description: Metal forming technology is one of the professional core courses for undergraduate majors in materials science and engineering as well as materials forming and controlling. With the "principle of plastic deformation in metal processing" as the leading course, it provides the basis for the following course experiment, graduation thesis design and graduate courses. The main contents of the course include metal rolling, extrusion, drawing technology and some novel plastic processing technologies. Students need to understand the main methods and equipment for the metal plastic deformation, comprehend the basic principles and characteristics of various deformation methods, master the process flows of metal pipe, rod, plate, wire, profiles and other production, and can flexibly apply the basic principles to analyze various forming defects. The course aims to help students to develop the thoughts of learning to use in practice, acquire the basic skills in materials preparation and forming, exercise and improve the ability of analyzing and solving practical problems, thus to lay a solid professional theoretical foundation for the future researches and work.

编 码: EN04002**Code:**EN04002**课程名称:** 金融学**Course Title:**Finance**课程类别:** 学类核心**Course category:**Major Survey Course**学 分:** 3**Credit(s):**3**开课单位:** 金融与统计学院**Offering College/School:**College of Finance and Statistics

课程描述: 本课程是经济、金融、管理等专业的学类核心课程，以微观经济学、宏观经济学为前导课程，为后续的国际金融学、中央银行学、公司金融等课程学习提供基础。

本课程包括金融概览、金融机构、金融市场与风险管理、金融调控与金融监管等四篇，内容主要包括货币、利率、汇率、中央银行、商业银行、金融市场、金融工程、货币供给与需求、货币政策、通货膨胀、金融监管等。学生需了解货币、信用、银行的基本原理和基本理论；理解市场经济条件下货币、信用、银行及现代金融的特点与发展趋势；掌握有关金融行业的基本知识和基本技能；并灵活运用所学知识分析金融经济政策的调整。通过学习本课程，学生领会金融运行的原理，获得金融学内容的整体框架，锻炼和提升对金融事件的分析与预测能力。

Course description: This course is a core course for economics, finance, insurance, management and other professional courses, and a pre-course in terms of microeconomics and macroeconomics, which can provide the foundation for international finance, central banking and corporate finance majors.

It can be divided into four chapters----financial overview, financial institutions, financial markets and risk management, financial regulation and supervision, including currency, interest rates, exchange rates, the central bank, commercial bank, financial markets, financial engineering, the money supply and demand, monetary policy, inflation, financial supervision, etc. Students should master the basic principles and theories of currency, credit and banking. Moreover, they should understand the characteristics and development trends of currency, credit, bank and modern finance in the market economy. Finally, they should have a better grasp of the basic knowledge related to the financial sector and understanding how to realize macroeconomic regulation with monetary policy tools. Through the study of this course, students can learn the principle financial system runs and view the whole frame of finance, exercising and improving their ability to analyze and predict financial affairs.

编 码: EN04005**Code:**EN04005**课程名称:** 应用统计学**Course Title:**Applied Statistics**课程类别:** 学类核心**Course category:**Major Survey Course**学 分:** 3**Credit(s):**3**开课单位:** 金融与统计学院**Offering College/School:**College of Finance and Statistics

课程描述: 本课程是经济类管理专业的学类核心课程。通过该课程的教学,使学生能够掌握统计学的基本概念、基本思想和基本方法,为学生学习后续相关专业课程打下必不可少的基础,通过应用统计学的整个教学过程使学生熟悉数据处理、数据分析、数据推断的各种基本方法,逐渐培养学生分析、解决社会经济生活中所遇到的各种问题的能力。主要内容为统计的基本方法和基本原理,具体包括抽样分布、参数估计、假设检验、方差分析与实验设计、相关分析与回归分析等。

Course description: This is a core course for majors of Economics and management, aiming at the student mastery of the basic concepts, ideas and methods of mathematical statistics, thus laying a solid foundation for their study of follow-up courses. The study of this course develops the student ability to understand and use the basic methods of data processing; analysis and inference, and to analyze and solve practical problems. The main contents of this course are the basic approaches and principles of mathematical statistics, including elements of sampling theory, parameter estimation, hypothesis testing, analysis of variance and experimental design, correlation and regression analysis.

编 码: EN04005**Code:**EN04005**课程名称:** 应用统计学**Course Title:**Applied Statistics**课程类别:** 学类核心**Course category:**Major Survey Course**学 分:** 3**Credit(s):**3**开课单位:** 金融与统计学院**Offering College/School:**College of Finance and Statistics

课程描述: 本课程是经济类管理专业的学类核心课程。通过该课程的教学,使学生能够掌握统计学的基本概念、基本思想和基本方法,为学生学习后续相关专业课程打下必不可少的基础,通过应用统计学的整个教学过程使学生熟悉数据处理、数据分析、数据推断的各种基本方法,逐渐培养学生分析、解决社会经济生活中所遇到的各种问题的能力。主要内容为统计的基本方法和基本原理,具体包括抽样分布、参数估计、假设检验、方差分析与实验设计、相关分析与回归分析等。

Course description: This is a core course for majors of Economics and management, aiming at the student mastery of the basic concepts, ideas and methods of mathematical statistics, thus laying a solid foundation for their study of follow-up courses. The study of this course develops the student ability to understand and use the basic methods of data processing; analysis and inference, and to analyze and solve practical problems. The main contents of this course are the basic approaches and principles of mathematical statistics, including elements of sampling theory, parameter estimation, hypothesis testing, analysis of variance and experimental design, correlation and regression analysis.

编 码: FI04002**Code:**FI04002**课程名称:** 金融学**Course Title:**Finance**课程类别:** 学类核心**Course category:**Major Survey Course**学 分:** 4**Credit(s):**4**开课单位:** 金融与统计学院**Offering College/School:**College of Finance and Statistics

课程描述: 本课程是经济、金融、管理等专业的学类核心课程，以微观经济学、宏观经济学为前导课程，为后续的国际金融学、中央银行学、公司金融等课程学习提供基础。

本课程包括金融概览、金融机构、金融市场与风险管理、金融调控与金融监管等四篇，内容主要包括货币、利率、汇率、中央银行、商业银行、金融市场、金融工程、货币供给与需求、货币政策、通货膨胀、金融监管等。学生需了解货币、信用、银行的基本原理和基本理论；理解市场经济条件下货币、信用、银行及现代金融的特点与发展趋势；掌握有关金融行业的基本知识和基本技能；并灵活运用所学知识分析金融经济政策的调整。通过学习本课程，学生领会金融运行的原理，获得金融学内容的整体框架，锻炼和提升对金融事件的分析与预测能力。

Course description: This course is a core course for economics, finance, insurance, management and other professional courses, and a pre-course in terms of microeconomics and macroeconomics, which can provide the foundation for international finance, central banking and corporate finance majors.

It can be divided into four chapters----financial overview, financial institutions, financial markets and risk management, financial regulation and supervision, including currency, interest rates, exchange rates, the central bank, commercial bank, financial markets, financial engineering, the money supply and demand, monetary policy, inflation, financial supervision, etc. Students should master the basic principles and theories of currency, credit and banking. Moreover, they should understand the characteristics and development trends of currency, credit, bank and modern finance in the market economy. Finally, they should have a better grasp of the basic knowledge related to the financial sector and understanding how to realize macroeconomic regulation with monetary policy tools. Through the study of this course, students can learn the principle financial system runs and view the whole frame of finance, exercising and improving their ability to analyze and predict financial affairs.

编 码: FI04003**Code:** FI04003**课程名称:** 保险学原理**Course Title:** Principles of Insurance**课程类别:** 学类核心**Course category:** Major Survey Course**学 分:** 3**Credit(s):** 3**开课单位:** 金融与统计学院**Offering College/School:** College of Finance and Statistics

课程描述: 本课程是金融、保险专业的学类核心课程，以《经济学》为前导课程，为进一步学习其他保险、精算方面课程提供基础。

本课程主要包括保险基础理论、保险实务、保险经营和保险市场等内容，学生需了解保险在国民经济中的重要作用，理解保险的本质和职能，掌握风险管理和保险经营技术，并能灵活运用保险的各项基本原则等。通过学习本课程，学生学会保险学的基本概念，获得风险管理、保险业务、保险经营与保险市场的相关知识，锻炼和提升对现实保险问题的分析和解决问题的能力。

Course description: This is a professional education course for finance and insurance major, with “economics” as the leading course, which provides the basis for further study on insurance and actuarial aspects.

This course mainly includes the basic theory of insurance, insurance practice, insurance operation and insurance market. Students need to know the important role of insurance in the national economy, understand the essence and functions of insurance, grasp the technologies of risk management and insurance operations, and use the basic insurance principles flexibly. By learning this course, students could learn the basic concept of insurance, acquire related knowledge of risk management, insurance business, insurance management and insurance market, exercise and improve the ability of analyzing and solving realistic insurance problems.

编 码: FI04005**Code:**FI04005**课程名称:** 国际金融学**Course Title:**International Finance**课程类别:** 学类核心**Course category:**Major Survey Course**学 分:** 3**Credit(s):**3**开课单位:** 金融与统计学院**Offering College/School:**College of Finance and Statistics

课程描述: 本课程是金融专业的专业核心课程,以西方经济学、金融学为先导课程,为外汇交易理论与实务、国际投资学方面课程学习提供支持。本课程教学内容包括六个部分:第一部分 国际收支;第二部分外汇、汇率与外汇市场;第三部分 汇率制度和外汇管制;第四部分 国际储备;第五部分 国际金融市场;第六部分 国际金融风险管理。通过本课程的学习,使学生能掌握国际金融的基本理论和基础知识,掌握国际间货币与资本运动的基本规律,能运用国际金融的基本原理和分析方法解释各种国际金融现象,理解各种国际金融政策,并能初步进行国际金融实务操作,为今后从事金融、经济类工作打下基础。在此基础上,引导学生进一步学习国际金融的前沿理论,力争把握当今国际金融发展的前沿走势,为将来进一步深入研究国际金融问题奠定基础。

Course description: International Finance is a specialized education course for students majored in Finance, with leading courses of Western Economics as well as Finance, providing support for the courses of Foreign Exchange Trading Theory and Practice as well as International Investment. The contents of the course are divided into six parts. The first part is the balance of payments. The second part refers to foreign exchange, exchange rate and exchange market. The third part is concerned with exchange system and management. The fourth part is about international reserve. The fifth part concerns international financial market. The sixth part concerns itself with international financial risks management. Through teaching, the aim is to let students grasp the basic theories and knowledge, by which they can explain various international phenomenon and understand various international finance policies, and build up a solid basis for their future job in economic or finance. Furthermore, to induct students into the further studying of the latest development in the theory in international finance, and trying hard to grasp the latest trends in international finance, in order that they can establish a foundation for future further steep study of problems in international finance.

编 码: FI04005**Code:**FI04005**课程名称:** 国际金融学**Course Title:**International Finance**课程类别:** 专业核心**Course category:**Required Core Course**学 分:** 3**Credit(s):**3**开课单位:** 金融与统计学院**Offering College/School:**College of Finance and Statistics

课程描述: 本课程是金融专业的专业核心课程,以西方经济学、金融学为先导课程,为外汇交易理论与实务、国际投资学方面课程学习提供支持。本课程教学内容包括六个部分:第一部分 国际收支;第二部分外汇、汇率与外汇市场;第三部分 汇率制度和外汇管制;第四部分 国际储备;第五部分 国际金融市场;第六部分 国际金融风险管理。通过本课程的学习,使学生能掌握国际金融的基本理论和基础知识,掌握国际间货币与资本运动的基本规律,能运用国际金融的基本原理和分析方法解释各种国际金融现象,理解各种国际金融政策,并能初步进行国际金融实务操作,为今后从事金融、经济类工作打下基础。在此基础上,引导学生进一步学习国际金融的前沿理论,力争把握当今国际金融发展的前沿走势,为将来进一步深入研究国际金融问题奠定基础。

Course description: International Finance is a specialized education course for students majored in Finance, with leading courses of Western Economics as well as Finance, providing support for the courses of Foreign Exchange Trading Theory and Practice as well as International Investment. The contents of the course are divided into six parts. The first part is the balance of payments. The second part refers to foreign exchange, exchange rate and exchange market. The third part is concerned with exchange system and management. The fourth part is about international reserve. The fifth part concerns international financial market. The sixth part concerns itself with international financial risks management. Through teaching, the aim is to let students grasp the basic theories and knowledge, by which they can explain various international phenomenon and understand various international finance policies, and build up a solid basis for their future job in economic or finance. Furthermore, to induct students into the further studying of the latest development in the theory in international finance, and trying hard to grasp the latest trends in international finance, in order that they can establish a foundation for future further steep study of problems in international finance.

编 码: FI04007**Code:**FI04007**课程名称:** 计量经济学**Course Title:**Econometrics**课程类别:** 学类核心**Course category:**Major Survey Course**学 分:** 4**Credit(s):**4**开课单位:** 金融与统计学院**Offering College/School:**College of Finance and Statistics

课程描述: 本课程是金融学、保险学和统计学专业的专业核心课程，以概率论和数理统计为前导课程，为后续课程学习提供数量分析工具。本课程主要包括 OLS 估计方法、多重共线性、异方差和自相关的处理、虚拟变量模型、工具变量估计以及面板数据模型等内容，学生需了解计量经济学的常见模型和估计方法，理解其含义，并能熟练运用 R 或者 MATLAB 软件来实现这些模型。本课程学习将使学生掌握计量经济学的基本理论和主要模型设定方法，能够熟练运用计量经济学软件分析现实中的经济金融数据，培养和提升学生数量分析以及解决实际问题的能力。

Course description: This course is compulsory for the students major in Finance, Insurance and Statistics. These prerequisite courses include probability and mathematical statistics. This course provides quantitative analytical instruments for follow-up courses. The main contents of course include OLS estimation, multicollinearity, heteroschedasticity, autocorrelation, dummy variable model, instrument variable estimation and panel data model, etc. The students will learn to the usual econometric models and estimating approaches, understand their implications, and are able to estimate the econometric models by using R or Matlab software. This course will enable the students to understand the basic theory and main econometric specification approaches, analyze the practical economic and financial data skillfully by using the econometric softwares, and be capable of solving the practical issues by using the quantitative analytical instuments.

编 码: FI04008X	Code: FI04008X
课程名称: 动态规划与随机控制	Course Title: Dynamic Programming and Stochastic Control
课程类别: 学类核心	Course category: Major Survey Course
学 分: 3	Credit(s): 3
开课单位: 金融与统计学院	Offering College/School: College of Finance and Statistics

课程描述: 本课程是金融工程专业的专业核心课程,以数学分析、运筹学、随机金融分析为前导课程,为资产定价和投资组合选择、高级宏观经济学等课程学习提供数理基础。本课程主要内容包括离散系统和连续系统动态规划基本理论,随机离散系统和连续系统动态规划及随机控制的基本理论以及它们在金融、经济等领域中的具体应用等。学生需了解动态规划和随机控制的基本概念,理解 Bellman 最优化原理,掌握 HJB 方程和鞅方法等。本课程旨在培养学生利用动态规划与随机控制的理论、方法和技巧解决实际金融问题的能力。

Course description: This course is compulsory for the students major in Financial Engineering. These prerequisite courses include multivariate calculus, differential equations, operations research and stochastic calculus for finance. This course paves the way for the study of asset pricing, portfolio choice and advanced macroeconomics. In this course, students will learn the theories of deterministic dynamic programming of discrete and continuous system, and the theories of stochastic dynamic programming of discrete and continuous system. Students need to know the basic concepts of dynamic programming and stochastic control, and understand Bellman's principle of optimality, Hamilton-Jacobi-Bellman equation and martingale approach. On successful completion of the course, the students are able to apply the theories, methods and techniques of dynamic programming and stochastic control to solve the practical problems in finance and economics.

编 码: FI04009**Code:**FI04009**课程名称:** 非参数统计**Course Title:**Nonparametric statistics**课程类别:** 学类核心**Course category:**Major Survey Course**学 分:** 3**Credit(s):**3**开课单位:** 金融与统计学院**Offering College/School:**College of Finance and Statistics

课程描述: 本课程是统计学专业的学类核心课程。非参数统计具有适应面广、假设条件少等优点,在统计学科中具有重要的地位。本课程主要讲授非参数统计的基本概念、原理、应用和实践。内容包括单一样本,两样本以及多样本非参数统计估计和假设检验,分类数据的关联分析方法,数值类型数据之间的相关关系和回归系数的非参数推断,以及非参数密度估计和非参数回归等。课程的主要特色是结合 R 软件讲解非参数统计方法的原理与应用,在学习非参数统计的同时,学习用程序设计语言表达统计分析过程。本课程注重对学生在统计计算方面的素质训练,着重对学生进行统计方法的选择、比较、分析和操作的综合能力培养。

Course description: This is a core course for majors of statistics. Nonparametric statistics has an important role in the statistics with wide adaptation and fewer assumptions. This course teaches the basic concepts, theory, application and practice of nonparametric statistics. The core contents include the non- parametric statistical estimation and hypothesis testing in a single sample, two samples and multiple samples. Besides, the association analysis of disaggregated data, nonparametric inference on correlation and regression coefficient, nonparametric density estimation, and the nonparametric regression are all taught in this course. The main feature of the course is to explain the principles and application of the nonparametric statistics with R software. When students learn this course, they can express the process of the statistical analysis with programming language. The course focuses on training students' ability on statistical computing, and aims to develop the comprehensive abilities on the choice of statistical methods, comparison, analysis and operation.

编 码: FI04010**Code:**FI04010**课程名称:** 风险管理(保险方向)**Course Title:**Risk Management**课程类别:** 学类核心**Course category:**Major Survey Course**学 分:** 3**Credit(s):**3**开课单位:** 金融与统计学院**Offering College/School:**College of Finance and Statistics

课程描述: 本课程是保险与精算专业学生的专业核心课程,以金融学、保险学原理、利息理论、投资学、管理学为前导课程,为保险经营管理、保险公司财务管理、保险精算实务、理财规划等课程提供知识基础及风险管理理念与方法。

本课程主要包括风险与风险管理目标、风险识别与风险度量、风险管理与企业价值、风险管理与资本管理、传统风险管理策略、新型风险转移方法(ART)及案例研究等内容,学生需了解风险管理理论及方法的发展历史,理解风险管理的基本概念、对偶性理念和基本原理,掌握基本的风险识别及度量方法、传统风险管理策略及新型风险转移方法(ART),并能灵活运用风险管理理念、策略和方法对组织、企业及个人进行风险管理方案的规划和设计。通过学习本课程,学生将具有先进的风险管理理念,获得扎实的风险管理基础知识,锻炼和提升其科学研究能力、理财规划能力及管理风险创造价值的的能力等等。

Course description: This is the Domain Core Course of Insurance and Actuarial Science. With the pre-requisite curriculums such as Finance, Principles of Insurance, Interest Theory, Investment, Management, this course introduces the basic concepts, theories and methods for risk management, providing the basic knowledge for curriculums including Insurance Management, Financial Management in Insurance Company, Actuarial Practice, Financial Planning, et cetera.

The main contents of this course include risk and risk management objectives, risk identification and measurement, risk management and enterprise value, risk management and capital management, traditional risk management strategies, alternative risk transfer (ART) and a series of case studies. Students are required to know the history of the risk management theory and risk management methodology. In addition, the basic concept of risk management and the ideas of duality should be understood. Besides, the methods of risk identification, risk measurement, traditional risk management and alternative risk transfer should be mastered. Moreover, students ought to be able to apply the philosophy and strategies of risk management flexibly on the design of risk management plan for organizations, enterprises and individuals. After finishing this course, advanced conceptual framework for risk management can be sett. The students will have solid elementary knowledge of risk management, which would enhance the ability of scientific research, improve the skill of financial planning, and cultivate the capability of creating value by risk management.

编 码: FI04011**Code:**FI04011**课程名称:** 风险管理(金融方向)**Course Title:**Risk Management (Finance Field)**课程类别:** 学类核心**Course category:**Major Survey Course**学 分:** 3**Credit(s):**3**开课单位:** 金融与统计学院**Offering College/School:**College of Finance and Statistics

课程描述: 本课程是金融工程专业的专业核心课程,以概率论、数理统计和金融计量学为前导课程。本课程主要包括金融风险管理框架,市场风险、操作风险、信用风险和流动风险的管理方法,以及内部控制、压力测试、在险价值等风险管理和度量方法,学生需了解金融市场和金融机构中各类风险的管理方法,理解其含义,并能熟练运用计量经济软件来估计和度量风险。通过学习本课程,学生能够熟练运用数量分析方法来分析金融机构和金融市场中的风险,锻炼和提升处理实际问题的能力。

Course description: This course is compulsory for the students major in Financial Engineering. These prerequisite courses include probability, mathematical statistics and financial econometrics. The main contents of course include the management framework for the financial risk, market risk, operating risk, credit risk, liquidity risk, internal control, stress tests, value-at risk, and other risk management and measurement approaches. The students will learn to various different risk management approaches for the financial markets and institutions, understand their implications, and are able to estimate and measure the risk by using econometric softwares. This course will enable the students to analyze the practical risk in financial markets and institutions, and train and improve their quantitative analytical ability.

编 码: FI04011**Code:**FI04011**课程名称:** 风险管理(金融方向)**Course Title:**Risk Management (Finance)**课程类别:** 专业核心**Course category:**Required Core Course**学 分:** 3**Credit(s):**3**开课单位:** 金融与统计学院**Offering College/School:**College of Finance and Statistics

课程描述: 本课程是金融工程专业的专业核心课程,以概率论、数理统计和金融计量学为前导课程。本课程主要包括金融风险管理框架,市场风险、操作风险、信用风险和流动风险的管理方法,以及内部控制、压力测试、在险价值等风险管理和度量方法,学生需了解金融市场和金融机构中各类风险的管理方法,理解其含义,并能熟练运用计量经济软件来估计和度量风险。通过学习本课程,学生能够熟练运用数量分析方法来分析金融机构和金融市场中的风险,锻炼和提升处理实际问题的能力。

Course description: This course is compulsory for the students major in Financial Engineering. These prerequisite courses include probability, mathematical statistics and financial econometrics. The main contents of course include the management framework for the financial risk, market risk, operating risk, credit risk, liquidity risk, internal control, stress tests, value-at risk, and other risk management and measurement approaches. The students will learn to various different risk management approaches for the financial markets and institutions, understand their implications, and are able to estimate and measure the risk by using econometric softwares. This course will enable the students to analyze the practical risk in financial markets and institutions, and train and improve their quantitative analytical ability.

编 码: FI04012**Code:** FI04012**课程名称:** 投资学(证券投资)**Course Title:** Investments(Security Investments)**课程类别:** 学类核心**Course category:** Major Survey Course**学 分:** 3**Credit(s):** 3**开课单位:** 金融与统计学院**Offering College/School:** College of Finance and Statistics

课程描述: 投资学（证券投资）是金融学相关专业的专业核心课程，以经济学原理、金融学为前导课程，为投资学、证券投资分析、固定收益证券、公司金融、投资组合管理、衍生金融工具等方面课程学习提供基础知识体系介绍。

本课程主要包括金融市场微观结构和金融机构的基本概念和理论，利率的基本理论，投资组合选择基本理论，证券价值分析的基本原理，衍生工具的基本概念和定价方法，市场有效性理论和行为金融理论等内容。学生需要了解金融市场的基本结构和运行规律，理解金融机构在经济体系中的职能和作用，掌握主要金融工具的概念和市场特征，并能灵活运用利率理论、证券估值理论和组合管理理论解决实际问题。通过学习本课程，学生能够学会证券估值和资产管理的一般方法，获得对金融市场运行的一般认识，锻炼和提升使用数量方法进行证券和投资分析的能力。

Course description: "Investments(Security Investments)" is one of the core courses in the Finance related specialization. The prerequisite courses include "The Economic Principle" and "Finance Theory". It tries to lay a solid foundation for the following courses which include "Security Analysis", "Fixed-Income Security Analysis", "Portfolio Management", "Financial Derivatives" and so on.

The main contents of the course are: 1) The basic concepts and theory of financial market structure and financial institutions. 2) The interest rate theory. 3) The modern portfolio selection theory and capital market equilibrium. 4) The principle of security valuation. 5) The derivative markets: concepts and valuation. 6) The efficient market hypothesis and behavioral finance.

The students are required to understand the basic mechanism of modern financial markets and are able to exploit interest rate theory, portfolio management theory and valuation theory to solve practical issues in security investments by quantitative methods.

编 码: FI04012**Code:** FI04012**课程名称:** 投资学(证券投资)**Course Title:** Investments(Security Investments)**课程类别:** 专业核心**Course category:** Required Core Course**学 分:** 3**Credit(s):** 3**开课单位:** 金融与统计学院**Offering College/School:** College of Finance and Statistics

课程描述: 投资学（证券投资）是金融学相关专业的专业核心课程，以经济学原理、金融学为前导课程，为投资学、证券投资分析、固定收益证券、公司金融、投资组合管理、衍生金融工具等方面课程学习提供基础知识体系介绍。

本课程主要包括金融市场微观结构和金融机构的基本概念和理论，利率的基本理论，投资组合选择基本理论，证券价值分析的基本原理，衍生工具的基本概念和定价方法，市场有效性理论和行为金融理论等内容。学生需要了解金融市场的基本结构和运行规律，理解金融机构在经济体系中的职能和作用，掌握主要金融工具的概念和市场特征，并能灵活运用利率理论、证券估值理论和组合管理理论解决实际问题。通过学习本课程，学生能够学会证券估值和资产管理的一般方法，获得对金融市场运行的一般认识，锻炼和提升使用数量方法进行证券和投资分析的能力。

Course description: "Investments(Security Investments)" is one of the core courses in the Finance related specialization. The prerequisite courses include "The Economic Principle" and "Finance Theory". It tries to lay a solid foundation for the following courses which include "Security Analysis", "Fixed-Income Security Analysis", "Portfolio Management", "Financial Derivatives" and so on.

The main contents of the course are: 1) The basic concepts and theory of financial market structure and financial institutions. 2) The interest rate theory. 3) The modern portfolio selection theory and capital market equilibrium. 4) The principle of security valuation. 5) The derivative markets: concepts and valuation. 6) The efficient market hypothesis and behavioral finance.

The students are required to understand the basic mechanism of modern financial markets and are able to exploit interest rate theory, portfolio management theory and valuation theory to solve practical issues in security investments by quantitative methods.

编 码: FI05001**Code:**FI05001**课程名称:** 财产保险**Course Title:**Property Insurance**课程类别:** 专业核心**Course category:**Required Core Course**学 分:** 3**Credit(s):**3**开课单位:** 金融与统计学院**Offering College/School:**College of Finance and Statistics

课程描述: 本课程是保险、精算专业的专业核心课程,以《保险学原理》为前导课程,为进一步学习其他保险、精算方面课程提供基础。

本课程主要包括财产保险市场、财险公司经营和财产保险业务体系等内容,学生需了解国内外主要财产保险市场的概况,理解财产保险的基本运作机制,掌握英美发达国家与我国财产与责任保险合同的主要条款,并能灵活运用财产保险的各项基本原则等。通过学习本课程,学生学会财产保险的基本概念,获得财产保险业务经营与管理的相关技术,锻炼和提升对财产保险实际问题的分析和解决能力。

Course description: This is the specialized education course for insurance and actuarial science major , with “principles of insurance” as the leading course, which provides the basis for further study on insurance and actuarial aspects.

This course mainly includes market, company management and business of the property insurance. Students need to know the general situation of main property insurance market at home and abroad, understand the basic operation mechanism of property insurance, master main contract terms of property and liability insurance in British- American developed countries and our country, and use the basic property insurance principles flexibly. By learning this course, students could learn the basic concept of property insurance, acquire the related technologies of management and administration in property insurance business, exercise and improve the ability of analyzing and solving realistic property insurance problems.

编 码: FI05002**Code:**FI05002**课程名称:** 利息理论**Course Title:**Interest Rate Theory**课程类别:** 专业核心**Course category:**Required Core Course**学 分:** 3**Credit(s):**3**开课单位:** 金融与统计学院**Offering College/School:**College of Finance and Statistics

课程描述: 这是一门为保险专业（含保险方向和精算方向）学生开设的专业基础课。同时它也是北美精算师考试和中国精算师资格考试的必考科目。通过该课程的教学使学生能够了解利息理论的基本概念、了解利息的基本理论和方法，从而使学生初步掌握处理利息的基本思想和方法，培养学生运用利息理论分析和解决实际问题的能力。为学生学习相关后续专业课程，如寿险精算数学、生命表构造与设计、寿险精算实务等，打下必不可少的基础；通过利息理论的整个教学过程逐渐培养学生分析问题、概括问题的能力；本课程教学的主要内容是介绍利息理论的基本知识，包括：利息的基本概念、年金、收益率、债务偿还、债券与其他证券、利息理论的应用与金融分析。

Course description: This course is one of foundation course for students of Insurance, which include insurance and actuarial. Meanwhile, it is also an examination subject of society of actuaries and china association of actuaries. After learning this course students are expected to be able to understand the basic concepts of interest and basic theories and methods of interest. Consequently students can preliminary master the basic ideas and methods to deal with interest and use the interest theory to analyze and solve practical problems. Interest theory is foundation of more specialized courses such as mathematics of life contingencies, life table construction and design, life insurance actuarial practice and so on. Students are expected to be able to analyze general problems through learning this course. The main content of this course is to introduce the basic knowledge of the interest theory --including the basic concepts of interest, annuities, yield rate, debt service, bonds and other securities, interest theory application and financial analysis.

编 码: FI05003**Code:**FI05003**课程名称:** 风险理论**Course Title:**Risk Theory**课程类别:** 专业核心**Course category:**Required Core Course**学 分:** 3**Credit(s):**3**开课单位:** 金融与统计学院**Offering College/School:**College of Finance and Statistics

课程描述: 《风险理论》是为保险专业（含保险方向和精算方向）学生开设的的一门专业必修课，也是北美精算师考试和中国精算师资格考试的重要内容。该课程以《概率论与数理统计》、《保险学原理》为前导课程，通过该课程的教学使学生了解在经济活动中风险的发生、规避及其进行科学管理的基本方法，掌握基本的保险风险模型。该课程的主要内容包括：短期个别风险模型、短期聚合风险模型、长期聚合风险模型，效用理论与保险决策。前两个模型可直接应用于保险产品纯保费的计算。长期聚合风险模型对再保险、保险监管、非寿险利润与定价的有关测算等都有重要的作用。基于效用理论的决策原理可以用来进行保费设计。通过课程的学习，学生学会基本的风险度量和管理的方法。

Course description: Risk theory is one of specialized courses for insurance profession students which include insurance and actuarial. It is also an actuarial examination subject of North America and China. The leading courses are“Probability Theory and Mathematical Statistics” and “Principle of Insurance”. Through learning “Risk Theory” students enable to understand the main model in risk theory, the occurrence of risk in economic activities and the basic method to avoid and manage the risks. This course is mainly to introduce short-term individual risk model, short-term aggregate risk model, long-term aggregate risk model, utility theory and insurance decision. The first two models are directly applied to calculate the net premium of insurance products. Whereas long-term aggregate risk model is important to measure reinsurance, insurance supervision, profit and rating of non-life insurance and so on. The decision based on utility theory can be used to design premium. Through studying this course, students will learn the basic risk measurement and management methods.

编 码: FI05004**Code:**FI05004**课程名称:** 人身保险**Course Title:**Life Insurance**课程类别:** 专业核心**Course category:**Required Core Course**学 分:** 3**Credit(s):**3**开课单位:** 金融与统计学院**Offering College/School:**College of Finance and Statistics

课程描述: 本课程是为保险学（含精算）专业学生开设的核心课程，以保险学原理为前导课程，为寿险精算方面课程学习提供基础。本课程主要包括人身保险概述、人身保险产品分析、人身保险合同条款、人身保险经营管理等内容，学生需了解国内外人身保险的发展现状，理解人身保险产品与条款的基本知识，掌握人身保险的基本原理与实务，能灵活运用人身保险的基本原则和理论知识分析并解决实际问题。通过学习本课程，学生学会人身保险的基本知识和理论，获得人身保险的专业技能，锻炼和提升分析和解决实践问题的能力。

Course description: The course is a core course for insurance major (including actuarial). The course's prerequisite is Principles of Insurance, and it provides basis for Life Insurance Actuarial Mathematics. The course's main contents include life insurance overview, life insurance products analysis, life insurance contract provisions and life insurance operations and management. Students need to know the developing of life insurance at home and abroad, understanding basic knowledge of products and terms in life insurance, systematically master the basic principles and theories of life insurance and use them to analyze and solve practical problems. Through the studying of this course, they can learn basic knowledges and theories of life insurance, have a better mastering of major technical ability in life insurance, and exercise and improve the ability to analyze and solve practical problems.

编 码: FI05005**Code:**FI05005**课程名称:** 保险精算学(寿险 I)**Course Title:** Actuarial Science (Life Insurance I)**课程类别:** 专业核心**Course category:** Required Core Course**学 分:** 3**Credit(s):** 3**开课单位:** 金融与统计学院**Offering College/School:** College of Finance and Statistics

课程描述: 这是一门为保险专业学生开设的专业基础课,通过该课程的教学使学生能够掌握寿险精算学的基本概念、基本理论和基本操作技能,为学生学习相关后续专业课程,打下坚实的基础;通过保险精算(寿险 I)的整个教学过程逐渐培养学生分析问题、概括问题的能力,培养学生具有比较熟练的运用精算符号和语言反映保险业务的能力;主要内容为寿险精算的基本方法和基本原理,具体包括:生命表函数、纯保费和责任准备金等。

Course description: This is a basic course for majors of insurance, aiming at the students' mastery of the basic concepts and theories of actuarial science and the development of their operation techniques in insurance, thus laying a solid foundation for their study of follow-up courses. The study of this course develops the students' ability to analyze and solve practical problems, to reflect insurance operation with actuarial symbols and actuarial language. The main contents of this course are the basic approaches and principles of actuarial science of life insurance, including functions of mortality table, net premium, liability reserves and so on.

编 码: FI05006	Code: FI05006
课程名称: 保险精算学(非寿险)	Course Title: Actuarial Science (Non-Life Insurance)
课程类别: 专业核心	Course category: Required Core Course
学 分: 3	Credit(s): 3
开课单位: 金融与统计学院	Offering College/School: College of Finance and Statistics

课程描述: 《风险理论》是为保险专业（含保险方向和精算方向）学生开设的的一门专业必修课，也是北美精算师考试和中国精算师资格考试的重要内容。该课程以《概率论与数理统计》、《保险学原理》为前导课程，通过该课程的教学使学生了解在经济活动中风险的发生、规避及其进行科学管理的基本方法，掌握基本的保险风险模型。该课程的主要内容包括：短期个别风险模型、短期聚合风险模型、长期聚合风险模型，效用理论与保险决策。前两个模型可直接应用于保险产品纯保费的计算。长期聚合风险模型对再保险、保险监管、非寿险利润与定价的有关测算等都有重要的作用。基于效用理论的决策原理可以用来进行保费设计。通过课程的学习，学生学会基本的风险度量和管理的方法。

Course description: Risk theory is one of specialized courses for insurance profession students which include insurance and actuarial. It is also an actuarial examination subject of North America and China. The leading courses are “Probability Theory and Mathematical Statistics” and “Principle of Insurance”. Through learning “Risk Theory” students enable to understand the main model in risk theory, the occurrence of risk in economic activities and the basic method to avoid and manage the risks. This course is mainly to introduce short-term individual risk model, short-term aggregate risk model, long-term aggregate risk model, utility theory and insurance decision. The first two models are directly applied to calculate the net premium of insurance products. Whereas long-term aggregate risk model is important to measure reinsurance, insurance supervision, profit and rating of non-life insurance and so on. The decision based on utility theory can be used to design premium. Through studying this course, students will learn the basic risk measurement and management methods.

编 码: FI05008**Code:**FI05008**课程名称:** 保险经营管理**Course Title:**Insurance Operation**课程类别:** 专业核心**Course category:**Required Core Course**学 分:** 3**Credit(s):**3**开课单位:** 金融与统计学院**Offering College/School:**College of Finance and Statistics

课程描述: 这是保险及精算专业的专业核心课,以保险学原理、人身保险、财产保险为前导课程。本课程以现代保险学、经济学和管理学理论为指导,主要对保险企业的各种业务及相关的组织管理问题进行了详尽的论述,根据决策理论、生产成本理论和保险企业的部门职能,对保险企业管理活动进行了多角度的解释和阐述;具体内容包括:保险公司及其行为、保险公司的决策、保险公司的产生过程如保险营销、核保、理赔等,逐渐培养学生分析问题、概括问题的能力,使学生掌握保险经营的具体环节和管理的具体方法,深入理解保险经营管理活动。

Course description: This is a core course for majors of insurance and actuarial, which explores the insurance businesses and insurance organization in reference to Modern Insurance Theory, Economics and Management, and makes an explanation about the insurance enterprises' management activities according to decision theory, production-cost theory and function areas of insurance enterprises. The study of this course develops the students' ability to analyze and solve practical problems, make the students to master the procedures and methods in the management of insurance companies and to understand the insurance management activities. The main contents includes the insurance companies' behaviors, insurance companies' decisions, production process such as marketing, underwriting and claim in insurance companies.

编 码: FI05009**Code:**FI05009**课程名称:** 中央银行学**Course Title:**Central banking**课程类别:** 专业核心**Course category:**Required Core Course**学 分:** 3**Credit(s):**3**开课单位:** 金融与统计学院**Offering College/School:**College of Finance and Statistics

课程描述: 本课程是金融专业的专业核心课程。本课程以西方经济学、金融学为前导课程,为学生进一步学习相关后续专业课程打下坚实的基础。本课程主要给学生讲授如下内容:第一,中央银行的基本理论,如中央银行的性质和职能,本课程主要讲述:中央银行概述,中央银行的地位和作用,中央银行的资产业务、负债业务、清算业务和其他业务,中央银行的货币政策,中央银行与金融监管,中央银行与金融稳定等。学生需要了解中央银行的发展历程,理解中央银行的基本理论与操作原理,掌握中央银行开展中央银行业务、实施货币政策、进行金融监管和维护金融稳定等重要内容。通过本课程学习,学生能系统掌握中央银行的原理与内容,提升运用理论分析宏观经济问题的能力。

Course description: This is a basic course for majors of finance. This course takes the western economics and finance as the leading course, and lays a solid foundation for the students to study the follow-up courses. The main contents are as follows: overview of the central bank, the status and role of the central bank, the central bank's assets business, liability business, payment and settlement business, monetary policy of the central bank, central bank and financial supervision, central bank and financial stability etc. Students need to understand the developing process of the central bank, to familiar with the basic theories and operation principles of the central bank, and to master important contents such as the central bank business, the implementation of monetary policy, financial supervision and financial stability etc. Through the studying of this course, students can systematically master the basic principles and contents of the central bank and improve the ability of using theories to analyze the macro-economic problems.

编 码: FI05011**Code:**FI05011**课程名称:** 公司金融**Course Title:**Corporate Finance**课程类别:** 专业核心**Course category:**Required Core Course**学 分:** 3**Credit(s):**3**开课单位:** 金融与统计学院**Offering College/School:**College of Finance and Statistics

课程描述: 本课程是金融学专业及其它相关专业的专业核心课程,以基础会计学,企业财务会计学及金融市场与机构为前导课程,为企业投资和企业财务管理方面课程学习提供基础知识和实践指导。

本课程主要包括资金的时间价值,企业的筹资及投资决策,项目预算,利润分配和财务报表分析等内容,学生需了解货币的时间价值计算,理解企业三大决策,掌握企业项目预算,并能灵活运用财务报表进行企业财务及运营状况分析等。通过学习本课程,学生学会公司财务管理的基础知识,获得企业决策的基本技能,锻炼和提升财务分析和预算能力等。

Course description: Corporate Finance is designed for finance and other related majors within the field of economics. Pre-requisite courses include but not limited to Basic Theory of Accounting, Corporate Accounting and Financial Markets and Institutions. This course is expected to equip students with basic knowledge and necessary skills in corporate investment and corporate financing management.

The course provides knowledge in time value of money, corporate financing and investment decisions, project budgeting, payout policy and financial statement analysis. Students will learn value of money in different time, understand three important policies in companies, which are financing, investment and payout policies, obtain the way to make capital budget and analyze corporate accounting and operating activities through the financial statements. After taking the course, students will have the ability of making appropriate decisions for corporate development and promoting their abilities on financial prediction.

编 码: FI05012**Code:**FI05012**课程名称:** 银行会计学**Course Title:**Bank Accounting**课程类别:** 专业核心**Course category:**Required Core Course**学 分:** 3**Credit(s):**3**开课单位:** 金融与统计学院**Offering College/School:**College of Finance and Statistics

课程描述: 本课程是金融专业的专业核心课程,以基础会计学为先导课程。该课程以金融法规和会计制度为依据,全面系统介绍运用会计方法反映银行资金运动的基本理论和基本方法,帮助学生全面了解商业银行的基本业务,为商业银行管理学课程的学习打下了坚实的基础。本课程主要包括银行会计基本核算方法、银行具体业务的核算和银行财务成果的核算等内容。商业银行具体业务包括存贷款业务、支付结算业务、银行间往来业务等。学生需了解《中华人民共和国会计法》和《金融企业会计制度》,理解银行的会计核算原理,掌握银行的会计核算方法,并能灵活运用其原理和方法对商业银行的各项基本业务进行会计核算。通过学习本课程,学生将学会处理银行基本业务会计核算,获得银行基本业务运作流程的相关知识,提升今后从事金融企业各项业务和管理工作的能力。

Course description: This course is a core course for the students of Finance.It takes Basic Accounting as the lead course.Based on the financial regulations and accounting system, it systematically introduces the basic theory and method of using accounting methods to reflect the movement of bank funds, which helps students fully understand the basic business of commercial banks and study the course of Management of Commercial Banks.This course mainly includes the methods of bank accounting, the accounting of the bank's specific business and the financial results of the bank.The commercial bank's specific business includes the deposit and loan business, the payment and settlement business, inter-bank business and so on. Students need to know the accounting law of the people's Republic of China and the accounting system of financial enterprises, understand the principle of bank accounting and master the methods of accounting of the bank. Furthermore, they need to flexibly use accounting principles and methods to carry out accounting of the basic business of commercial banks. Through the study of this course, students will be able to deal with the accounting of bank's basic business and acquire some useful knowledge of the operation process of the bank's basic business. More importantly, their ability to engage in financial business and management of financial enterprises will be improved.

编 码: FI05013	Code: FI05013
课程名称: 组合投资与管理	Course Title: Portfolio Investment and Management
课程类别: 专业核心	Course category: Required Core Course
学 分: 3	Credit(s): 3
开课单位: 金融与统计学院	Offering College/School: College of Finance and Statistics

课程描述: 本课程是金融专业的专业核心课程,以金融市场学为前导课程,为培养学生的组合投资与管理能力提供现代投资学基础理论指导和基本操作技能训练。本课程主要包括效率市场理论、资产组合理论、资产定价理论、投资工具定价分析和组合管理业绩评价等内容,学生需了解各类投资工具的特征、金融市场功能、投资收益与风险界定、投资者分类,理解市场有效性假设的重要意义,掌握组合投资原理与方法、资本资产定价原理与方法,并能灵活运用投资组合理论和资产定价理论进行组合投资分析与管理。通过学习本课程,学生学会投资组合的构建、管理和评价方法,以及资产定价理论及其应用,锻炼和提升投资分析能力和组合管理能力。

Course description: This is a core course for finance majors. Based on financial market, it is aimed at providing theoretical guidance of modern investment and professional basic skills training to develop the students' abilities of portfolio selection and portfolio management. The main contents of this course include the efficient market theory, the portfolio investment theory, the capital asset pricing theory, asset pricing of investment instrument, the performance evaluation of portfolio management, etc. Students are required to know the characteristics of various kinds of investment instruments, the function of financial market, the determination of investment return and risk and the categorization of investors, to understand the significance of efficient market hypothesis, to master the principles and methods of portfolio investment and capital asset pricing. Moreover, the knowledge imparted enables students to apply the portfolio investment theory and the capital asset pricing theory to the analysis and management of portfolio investment flexibly. Through this course, students will be able to learn the construction, management and evaluation methodology of portfolio investment, and the capital asset pricing theory and its applications, and to cultivate and improve the ability to analyze investment and manage portfolio investment.

编 码: FI05014	Code: FI05014
课程名称: 商业银行管理学	Course Title: Management of Commercial Banks
课程类别: 专业核心	Course category: Required Core Course
学 分: 3	Credit(s): 3
开课单位: 金融与统计学院	Offering College/School: College of Finance and Statistics
课程描述: 本课程是金融专业的专业核心课程, 以金融学和投资学为为前导课程, 为银行会计、金融市场营销等方面课程学习提供业务和金融分析基础。	

本课程主要包括商业银行资本金、资产与负债业务、中间业务、证券投资和国际业务等业务管理; 资产负债综合管理、经济资本管理、资金流动性管理等决策管理; 以及财务管理、人力资源管理、市场营销管理等内容。学生需了解现代商业银行的各项基本业务, 理解各项基本业务与风险之间的关系, 掌握商业银行管理中成本、收益和风险决策的基本方法, 并能灵活运用客户信用分析、客户经济效益跟踪管理、银行财务评价等。通过学习本课程, 学生学会商业银行业务操作和风险管理等知识, 获得商业银行经营管理的基本理论、基本知识和基本方法, 锻炼和提升银行业务评价及风险分析、金融决策等能力。

Course description: This course is the core course for finance major, with pre-requisite courses of finance and investment, providing basic business and financial analysis abilities for bank accounting, financial marketing and other related courses.

Topics include commercial bank capital management, assets and liabilities management, securities investment and international business management, decisions techniques of economical capital management, capital liquidity management etc. The course also provides knowledge such as financial management, human resources management and marketing. Students are required to know business in modern commercial banks, relationships between business and risks, skills of balancing costs, return and risks in commercial banking management, methods of analyzing customers' credit background, scale of economy and bank financial evaluation. After taking the course, students will be able to utilize knowledge in commercial bank business and risk management, obtain basic theories in the commercial bank management, as well as basic skills and techniques, thus promoting their capability in banking evaluation, risk evaluation and financial decision-making.

编 码: FI05015**Code:**FI05015**课程名称:** 技术经济与项目评估**Course Title:** Technical economy and Project Evaluation**课程类别:** 专业核心**Course category:** Required Core Course**学 分:** 3**Credit(s):** 3**开课单位:** 金融与统计学院**Offering College/School:** College of Finance and Statistics

课程描述: 本课程是金融专业的专业核心课程,以金融学为前导课程,为投资学方面课程学习提供基础。本课程实用性很强,它以投资项目为研究对象,着重从信用与社会环境、经济、技术的可行性方面进行评估和分析,为投资项目科学决策提供依据。本课程主要包括:技术经济学的性质、特征;现金流量与资金时间价值;财务基础数据的预测;经济效果评估指标的计算与应用;企业经济效益评估与国民经济效益评估;投资项目的不确定性分析等内容。通过学习本课程,学生能够较全面地掌握技术经济与项目评估的基本理论、基本方法和实际操作技能;掌握市场调查和市场预测的基本原理和方法;熟悉经济效益评估的静态和动态分析方法;能熟练进行投资项目的风险评估;提升学生的项目评估能力。

Course description: Technical economy and Project Evaluation is the core module of financial education. It is delivered on the background of the curriculum of Finance and provides basic knowledge for investment science learning. This highly practical course evaluates and analyzes investment projects from the perspectives of credit risk, society environment, economy development and technology viability, so as to provide valuable judgement for investment project decision. The main content of this course includes: definition and characteristics of technical economy; cash flow and time value of money; forecast of basic financial data; calculation and application of economic impact assessment indicators; evaluation of corporate economic effect and national economic effect; analysis of the uncertainty of investment projects, etc. This course aims to help students fully grasp the fundamental theories, methods and related practical skills of technical economy and project evaluation, understand the basic principle of market research and forecast, get familiar with static and dynamic analysis and finally learn to evaluate the risk of an investment project proficiently.

编 码: FI05016**Code:**FI05016**课程名称:** 外汇交易理论与实务**Course Title:** Foreign Exchange Trading Theory and Practice**课程类别:** 专业核心**Course category:** Required Core Course**学 分:** 3**Credit(s):** 3**开课单位:** 金融与统计学院**Offering College/School:** College of Finance and Statistics

课程描述: 本课程是金融专业的专业核心课程,以经济学、金融学、金融市场学、国际金融为前导课程。本课程分为理论篇与实务篇两个部分。理论篇介绍主要的汇率决定理论,包括购买力平价、利率平价、蒙代尔-弗莱明模型、货币主义汇率模型、资产组合平衡模型等内容。实务篇讲述主要的外汇交易类型,包括即期外汇交易、远期外汇交易、外汇掉期交易、外汇期权、外汇期货、互换交易等。学生需了解有关汇率理论研究的最新成果和国际金融市场中外汇交易实务的最新变化,理解各汇率决定理论的原理,掌握各类外汇交易的规则,并能灵活运用各类外汇工具进行套期保值、投资、套利等交易。通过学习本课程,学生学会解决汇率决定、外汇衍生品定价等实际问题,锻炼和提升利用金融学理论解决实际问题的能力,为进一步学习其他相关课程及独立解决金融市场实际问题打下坚实基础。

Course description: This course is one of the compulsory courses for students majoring in Finance. The prerequisite courses include Basic Economics, Introductory Finance, Principles of Financial Markets, and International Finance. The course consists of two parts. The first part studies the main theories of exchange rate determination, which are purchasing power parity, interest parity, Mundell-Fleming model, monetary models, and portfolio balance model etc. The second part covers the various foreign exchange transactions in global financial markets, which include spot transaction, forward transaction, foreign exchange swap, currency option, foreign exchange future, and currency swap etc. The course is designed to help students have a good understanding of exchange rate theories and their applications as well as recent developments in foreign exchange markets. It would help students prepare for other related courses and solving practical issues in financial markets independently in their future careers.

编 码: FI05020**Code:**FI05020**课程名称:** 运筹学**Course Title:**Operations Research**课程类别:** 学类核心**Course category:**Major Survey Course**学 分:** 3**Credit(s):**3**开课单位:** 金融与统计学院**Offering College/School:**College of Finance and Statistics

课程描述: 本课程是金融工程专业的学类核心课程,以高等数学、线性代数为先导课程,为《动态规划与随机控制》、《风险管理(金融方向)》、《金融衍生品定价与管理》等方面课程学习提供理论基础。本课程主要包括线性规划、整数规划、非线性规划、动态规划和决策论等内容,学生应了解运筹学的发展过程,理解与基本模型相关的概念和原理,掌握各种模型的功能、特点、建模步骤和求解方法,能灵活运用于解决根据实际背景抽象出的运筹学问题。通过学习本课程,学生学会运筹学的方法论和整体优化思想,具备运用运筹学思想和方法分析、解决实际问题的能力。

Course description: This is a professional education course for majors of Financial Engineering. Based on Advanced Mathematics and Linear algebra, this course provide the theoretical basis for Dynamic Programming and Stochastic Control, Risk Management(Finance), Pricing and Management of Financial Derivatives. The content include Linear Programming, Integer Programming, Non-linear Programming, Dynamic Programming and Decision theory, etc. The student should learn about the history of operations research, understand the concepts and principles associated with the basic model, master the functions, features, modeling steps and solving method of these models, and can flexibly applied them to solve operations research problem abstracted from the actual background. Through this course, students can grasp the methodology and optimization idea of operational research, obtain the ability of analyzing and solving realistic problem with operations research.

编 码: FI05020**Code:**FI05020**课程名称:** 运筹学**Course Title:**Operations**课程类别:** 专业核心**Course category:**Required Core Course**学 分:** 3**Credit(s):**3**开课单位:** 金融与统计学院**Offering College/School:**College of Finance and Statistics

课程描述: 本课程是金融工程专业的学类核心课程,以高等数学、线性代数为先导课程,为《动态规划与随机控制》、《风险管理(金融方向)》、《金融衍生品定价与管理》等方面课程学习提供理论基础。本课程主要包括线性规划、整数规划、非线性规划、动态规划和决策论等内容,学生应了解运筹学的发展过程,理解与基本模型相关的概念和原理,掌握各种模型的功能、特点、建模步骤和求解方法,能灵活运用于解决根据实际背景抽象出的运筹学问题。通过学习本课程,学生学会运筹学的方法论和整体优化思想,具备运用运筹学思想和方法分析、解决实际问题的能力。

Course description: This is a professional education course for majors of Financial Engineering. Based on Advanced Mathematics and Linear algebra, this course provide the theoretical basis for Dynamic Programming and Stochastic Control, Risk Management(Finance), Pricing and Management of Financial Derivatives. The content include Linear Programming, Integer Programming, Non-linear Programming, Dynamic Programming and Decision theory, etc. The student should learn about the history of operations research, understand the concepts and principles associated with the basic model, master the functions, features, modeling steps and solving method of these models, and can flexibly applied them to solve operations research problem abstracted from the actual background. Through this course, students can grasp the methodology and optimization idea of operational research, obtain the ability of analyzing and solving realistic problem with operations research.

编 码: FI05020**Code:**FI05020**课程名称:** 运筹学**Course Title:**Operations**课程类别:** 专业核心**Course category:**Required Core Course**学 分:** 3**Credit(s):**3**开课单位:** 金融与统计学院**Offering College/School:**College of Finance and Statistics

课程描述: 本课程是金融工程专业的学类核心课程,以高等数学、线性代数为先导课程,为《动态规划与随机控制》、《风险管理(金融方向)》、《金融衍生品定价与管理》等方面课程学习提供理论基础。本课程主要包括线性规划、整数规划、非线性规划、动态规划和决策论等内容,学生应了解运筹学的发展过程,理解与基本模型相关的概念和原理,掌握各种模型的功能、特点、建模步骤和求解方法,能灵活运用于解决根据实际背景抽象出的运筹学问题。通过学习本课程,学生学会运筹学的方法论和整体优化思想,具备运用运筹学思想和方法分析、解决实际问题的能力。

Course description: This is a professional education course for majors of Financial Engineering. Based on Advanced Mathematics and Linear algebra, this course provide the theoretical basis for Dynamic Programming and Stochastic Control, Risk Management(Finance), Pricing and Management of Financial Derivatives. The content include Linear Programming, Integer Programming, Non-linear Programming, Dynamic Programming and Decision theory, etc. The student should learn about the history of operations research, understand the concepts and principles associated with the basic model, master the functions, features, modeling steps and solving method of these models, and can flexibly applied them to solve operations research problem abstracted from the actual background. Through this course, students can grasp the methodology and optimization idea of operational research, obtain the ability of analyzing and solving realistic problem with operations research.

编 码: FI05024**Code:**FI05024**课程名称:** 保险法**Course Title:**Insurance Law**课程类别:** 专业核心**Course category:**Required Core Course**学 分:** 3**Credit(s):**3**开课单位:** 金融与统计学院**Offering College/School:**College of Finance and Statistics

课程描述: 本课程是保险专业的核心课程,以保险学原理为前导课程,为财产保险、人身保险和再保险等方面课程学习提供法律基础。

本课程主要内容是保险法的基本法理和保险法法律条文释义,具体包括:保险法的分类、发展、渊源、保险合同法、保险业法和案例研究等。通过该课程的教学,使学生了解保险相关法律知识,理解保险业法,掌握保险合同法,并能灵活运用保险合同的成立、生效、变更、解除、无效、终止等,同时,学生在保险实务中能够懂法、守法并运用法律知识解决保险实务中出现的争议和纠纷。通过保险法的整个教学过程,培养学生分析问题、解决问题的能力。

Course description: This is a specialized education course for majors of insurance. Its leading course is Principles of Insurance. The course lays a legal foundation for the students' study of follow-up courses such as Property Insurance, Life Insurance and Reinsurance and so on.

The main contents of the course are the legal principle and the equity of a statute, including the classification, development, sources of insurance law, Insurance Contract Act, Insurance Company Act and case study and so on. The course offers the students to know the Insurance Company Act, to understand the Insurance Contract Act and to apply the establishment, effectiveness, modification, rescission, invalidity, termination of insurance contract which help the students to keep the law and settle dispute by laws in the insurance practice. The study of this course develops the students' ability to analyze and solve practical problems.

编 码: FI05025**Code:**FI05025**课程名称:** 博弈论**Course Title:**Game Theory**课程类别:** 专业核心**Course category:**Required Core Course**学 分:** 3**Credit(s):**3**开课单位:** 金融与统计学院**Offering College/School:**College of Finance and Statistics

课程描述: 本课程是经济统计学专业及金融工程专业的专业核心课程,以线性代数,概率论与数理统计课程为前导课程。本课程主要包括完全信息静态博弈、完全且完美信息动态博弈、重复博弈、完全但不完美信息动态博弈、不完全信息静态博弈和不完全信息动态博弈等内容,学生须了解博弈论中各种均衡概念与性质,掌握各类博弈的分析及各种均衡的求法,并能灵活运用该课程之理论去分析经济活动,军事中有关的博弈问题。通过学习本课程,学生学会博弈论的一些基本理论与方法,培养和提升今后工作中可能面对的各种博弈时正确处理的能力等。

Course description: This course is compulsory for the students major in Financial Engineering and Economic Statistics. These prerequisite courses include probability, and mathematical statistics and financial econometrics. The main contents of course include the complete information static game, complete and perfect information dynamic game, repeating game, complete and imperfect information dynamic game, incomplete information static game and incomplete information dynamic game. The students will learn to various different equilibrium concepts and their properties, understand how to analyze the various different games and obtain their equilibrium solutions. Moreover, this course will enable the students to analyze the game issues related to the economic and military activities. On successful completion of the course, the students will be able to understand the basic theory and approaches in game theory, and deal with the practical issues by using the game theory.

编 码: FI05026**Code:**FI05026**课程名称:** 金融工程学**Course Title:**Financial Engineering**课程类别:** 专业核心**Course category:**Required Core Course**学 分:** 3**Credit(s):**3**开课单位:** 金融与统计学院**Offering College/School:**College of Finance and Statistics

课程描述: 本课程是金融专业的专业核心课,以《概率论》和《数理统计》为前导课程,要求学生具有金融市场方面的初步基础知识,本课程为《数值分析》和《衍生品定价》等更加专业的课程提供铺垫。金融工程学介绍各种金融衍生品的风险与收益,分析金融衍生品的交易机制,应用各种工程学方法对金融衍生品进行定价分析,并通过金融衍生品的设计和交易解决实际问题。金融工程学应用各种工程学方法,通过金融产品的复制、拆分、组合和创造等手段,达到投机、套利和保值的目的。

Course description: This course is a core one for students of finance after the course of probability and statistics. It is expected that the students has some preliminary knowledge on financial markets. This course provides students with preparation for more preforssional study, such as numerical analysis and the pricing of derivatives. An analysis of the risk and return, and trading mechanism of various instruments is presented. Various methods are applied to value financial products. The copying, recanpaging, and creating of financial products is employed to speculate, or arbitrage, or hedge.

编 码: FI05027**Code:**FI05027**课程名称:** 金融计量学**Course Title:**Financial Econometrics**课程类别:** 专业核心**Course category:**Required Core Course**学 分:** 3**Credit(s):**3**开课单位:** 金融与统计学院**Offering College/School:**College of Finance and Statistics

课程描述: 本课程是金融工程专业的专业核心课程,以概率论和数理统计为前导课程,为金融工程方面课程学习提供数量分析工具。本课程主要包括 OLS 估计方法、多重共线性、异方差和自相关的处理、ARIMA 模型、ARCH/GARCH 模型、单位根和协整检验、向量自回归模型等内容,学生需了解金融计量学的常见模型和分析方法,理解其含义,并能熟练运用 R 或者 MATLAB 软件来实现这些模型。通过学习本课程,学生能够熟练运用数量分析方法来分析现实中的金融数据,培养和提升数量分析能力。

Course description: This course is compulsory for the students major in Financial Engineering. These prerequisite courses include probability and mathematical statistics. This course provides quantitative analytical instruments for follow-up courses. The main contents of course include OLS estimation, multicollinearity, heteroschedasticity, autocorrelation, ARIMA models, ARCH/GARCH models, unit root and cointegration tests, VAR models, etc. The students will learn to the usual financial econometric models and estimating approaches, understand their implications, and are able to estimate the econometric models by using R or Matlab software. This course will enable the students to analyze the practical economic and financial data skillfully by using the econometric softwares, and train and improve their quantitative analytical ability.

编 码: FI05028**Code:**FI05028**课程名称:** 金融随机分析**Course Title:** Stochastic Calculus for Finance**课程类别:** 专业核心**Course category:** Required Core Course**学 分:** 3**Credit(s):** 3**开课单位:** 金融与统计学院**Offering College/School:** College of Finance and Statistics

课程描述: 本课程是金融工程专业的专业核心课程,以数学分析和随机过程作为先导课程,为金融工程和金融衍生工具等课程的学习提供基础。本课程主要内容包括金融经济学中常使用的随机过程、随机积分和金融资产定价理论的核心思想等。学生需了解测度论的基本概念和随机积分定义等,理解布朗运动及其基本性质、Ito 引理等,掌握无套利定价基本原理和鞅定价方法等。本课程的学习将使学生学会资产定价的基本方法,并培养学生利用数理模型对金融资产进行估值的实践能力。

Course description: This course is compulsory for the students major in Financial Engineering. These prerequisite courses include multivariate calculus and stochastic processes. This course paves the way for the study of financial engineering and financial derivatives pricing. The main contents of this course are the common stochastic processes in finance, stochastic calculus and the basic principles for pricing financial assets. The students will learn the basic concepts of measure theory and the definition of stochastic calculus. Besides, the students need to understand Brownian motions and their properties, Ito's lemma, the principle of no arbitrage pricing and martingale approach. On successful completion of the course, the students are able to understand the basic principles and methods of asset pricing, and they are capable of employing mathematical models to evaluate financial assets in practice.

编 码: FI05029**Code:**FI05029**课程名称:** 金融投资统计分析**Course Title:**Statistic Analysis of Finance Investment Statistic**课程类别:** 专业核心**Course category:**Required Core Course**学 分:** 3**Credit(s):**3**开课单位:** 金融与统计学院**Offering College/School:**College of Finance and Statistics

课程描述: 本课程是统计学专业的专业核心课程。金融投资统计分析是经济统计分析的重要分支,它是融合金融理论、金融统计指标、数据、现实金融问题、统计方法运用为一体的知识体系。它包括银行与货币统计及分析、金融市场统计及分析、金融企业运营统计、国际收支统计及分析、资金流量统计及分析、金融统计方法的综合技术分析以及金融统计分析的新领域——金融体系国际竞争力的各个组成部分统计分析。在内容上将实证金融理论、金融统计、金融统计分析的主题和统计分析方法应用知识层面有机结合。

Course description: This is a core course for majors of statistics. Financial investment statistics analysis is an important branch of economic statistics analysis, it is fusion financial theory, financial statistic index, data, real financial problems, statistical methods used for one of the knowledge system. It includes banking and monetary statistics and analysis, financial market statistics and analysis, financial enterprise statistics, balance of payments statistics and analysis, the flow of funds statistics and analysis, financial and statistical method of comprehensive analysis and financial statistics and analysis of the new field, the financial system of the international competitiveness of each part of the statistical analysis. By learning this course, students in learning has been finance theory and statistical principle foundation, further understanding of the quantitative characteristics of China's financial investment activities, master the basic method of the statistical analysis of financial investment.

编 码: FI05030**Code:**FI05030**课程名称:** 金融衍生品定价与管理**Course Title:**Pricing and management of financial derivatives**课程类别:** 专业核心**Course category:**Required Core Course**学 分:** 3**Credit(s):**3**开课单位:** 金融与统计学院**Offering College/School:**College of Finance and Statistics

课程描述: 作为金融工程专业的基础课程,本课程以金融工程学为前导课程。本课程将系统地讲授金融衍生产品,包括金融衍生产品的经济特征、常见衍生品的投资组合、衍生产品的价格决定以及数值实现方法等问题。此外,本课程也将适当介绍随机分析理论的基本内容、以及 Black-Scholes 模型的自然推广:跳扩散模型和随机波动模型。其中金融衍生品的性质、定价基本原理和数值实现方法是本课程的重点内容。当今国际金融市场上,金融衍生品主要包括三个部分:股票衍生品,利率衍生品和信贷衍生品,本课程的重点关注股票衍生品。

Course description: As a basic course of financial engineering, the course is a continuous study of financial engineering. The course aims to introduce financial derivatives, including economic characteristics, the portfolio, the pricing, as well as the numerical implementation method of the financial derivatives, etc. In addition, this course will also introduce the basic contents of stochastic analysis theory, and the natural promotion of Black-Scholes: the jump-diffusion model and stochastic volatility model. Especially, the nature of financial derivatives, basic principle of pricing and numerical method are the key contents of this course. In today's international financial market, financial derivatives mainly include three parts: equity derivatives, interest rate derivatives and credit derivatives. The focus of this course is equity derivatives.

编 码: FI05031**Code:**FI05031**课程名称:** 数据挖掘技术**Course Title:**Data Mining**课程类别:** 专业核心**Course category:**Required Core Course**学 分:** 3**Credit(s):**3**开课单位:** 金融与统计学院**Offering College/School:**College of Finance and Statistics

课程描述: 本课程是统计学专业的专业核心课程。数据挖掘是一个从存储在数据库、数据仓库或其他介质种中的大量数据中发现人们感兴趣的知识的过 程。本课程的目的是使学生掌握数据挖掘的基本概念、相关技术及其在不同数据处理和不同规则提取中的应用现状、应用前景和研究方向。教学内容主要包括: (1) 数据挖掘的基本概念, 功能, 处理过程及应用领域; (2) 数据预处理, 包括数据样本的缺失处理、数据清理和数据降维;(3)针对不同的挖掘任务, 介绍各种算法, 包括概念描述、关联规则分析、分类回归和聚类; (4) 提取的模式的评价和分析, 数据结果可视化; (5) 各技术的应用实例及前景, 使学生对本课程知识有深入的理论与应用的了解。

Course description: This is a core course for majors of statistics. Data mining is the process of discovering interesting knowledge from large amounts of data stored either in database, data warehouses, or other information repositories. Through the study in this class, we mainly make students master the basic concept of data mining, correlative techniques, and their applications. The main content of this class are as follows: (1) The basic concept of data mining, function of data mining, and their application. (2)data preparation including the dealing with missing value, data cleaning, data reduction etc.. (3) some different kinds of data mining methods, which can resolve different problems, There are concept description, association rules analysis, classification & regression, and clustering. (4)Pattern evaluation and analysis. (5) The test example of those data mining methods.

编 码: ST03003**Code:**ST03003**课程名称:** 概率论**Course Title:**Probability Theory**课程类别:** 学类核心**Course category:**Major Survey Course**学 分:** 4**Credit(s):**4**开课单位:** 金融与统计学院**Offering College/School:**College of Finance and Statistics

课程描述: 本课程是金融工程和统计学专业的专业核心课程,以数学分析、线性代数为先导课程,为数理统计学、计量经济学、统计学等课程学习提供理论基础。本课程主要包括随机事件相关的基本概念、随机变量及其分布、随机向量及其分布、随机变量的数字特征、大数定律与中心极限定理等内容。学生需要理解概率论的基本概念,掌握研究随机现象的基本思想、基础理论与方法,并能灵活运用概率论的基本理论与方法分析解决社会经济中的随机问题。通过本课程的学习,一方面,为学生后续相关专业课程,如数理统计学、计量经济学打下必不可少的基础;另一方面,培养和训练学生运用概率论基本思想、基础理论、基本方法,分析、研究和解决社会经济生活中所遇到的各种问题的能力。

Course description: This course is a core course for students major in Finance Engineering and Mathematical Statistics, and provides theoretical foundation for follow-up courses. The prerequisite courses include mathematical analysis and linear algebra. The main contents of course include the basic concepts of random events, random variable, random vector and their distributions, expectation, variance, law of large numbers and central limit theory. The students are required to learn the basic concepts of the probability theory, understand the basic idea, theory and method, and analyze the basic social and economic issues skillfully by using the method of the probability theory. The course will provide students a solid mathematical foundation for the follow-up courses, for example, mathematical statistics and econometrics. Furthermore, it will enable the students to analyze, study, and solve the various economic and social issues by using the basic idea, theory, and methods in probability theory.

编 码: ST04006**Code:**ST04006**课程名称:** 统计学**Course Title:**Statistics**课程类别:** 学类核心**Course category:**Major Survey Course**学 分:** 4**Credit(s):**4**开课单位:** 金融与统计学院**Offering College/School:**College of Finance and Statistics

课程描述: 本课程是统计、经济、管理类专业的学类核心课程。通过该课程的教学使学生能够掌握统计学的基本概念、基本思想和基本方法, 为学生学习后续相关专业课程, 如计量经济学、时间序列分析、多元统计分析、抽样调查和非参数统计等, 打下必不可少的基础; 通过统计学的整个教学过程使学生熟悉数据处理、数据分析、数据推断的各种基本方法, 逐渐培养学生分析、解决社会经济生活中所遇到的各种问题的能力; 主要内容为统计的基本方法和基本原理, 具体包括: 抽样分布、参数估计、假设检验、方差分析与试验设计、相关分析与回归分析等。

Course description: This is a core course for majors of statistics, economics and management, aiming at the students' mastery of the basic concepts, ideas and methods of mathematical statistics, thus laying a solid foundation for their study of follow-up courses such as econometrics, time series analysis, multivariate statistical analysis, sample survey and nonparametric statistics. The study of this course develops the students' ability to understand and use the basic methods of data processing, analysis and inference, and to analyze and solve practical problems. The main contents of this course are the basic approaches and principles of mathematical statistics, including elements of sampling theory, parameter estimation, hypothesis testing, analysis of variance and experimental design, correlation and regression analysis.

编 码: ST04008**Code:**ST04008**课程名称:** 数理统计**Course Title:**mathematical statistics**课程类别:** 学类核心**Course category:**Major Survey Course**学 分:** 3**Credit(s):**3**开课单位:** 金融与统计学院**Offering College/School:**College of Finance and Statistics

课程描述: 本课程是金融工程专业和统计学专业的专业核心课程,以数学分析、线性代数、概率论为前导课程,为计量经济学、统计学等课程学习提供理论基础。本课程主要包括数理统计的基本概念、统计量的抽样分布、参数估计理论、统计假设检验理论、方差分析、回归分析等内容。学生需要了解数理统计经济学中的地位和作用,理解数理统计学的基本概念、研究对象,掌握研究随机现象的基本思想、基础理论与方法,并能灵活运用数理统计学的基础理论与方法分析社会经济中的问题。通过本课程的学习,一方面,为学生后续相关专业课程,如计量经济学、统计学打下必不可少的基础;另一方面,培养和训练学生运用数理统计学的基本思想、基础理论、基本方法,分析、研究和解决社会经济生活中所遇到的各种实际问题的能力。

Course description: This course is a core course for students major in Finance Engineering and Mathematical Statistics, and provides theoretical foundation for follow-up courses, for example, econometrics and statistics. The prerequisite courses include mathematical analysis, linear algebra, and probability theory. The main contents of course include the basic concepts of methematical statistics, the sampling distribution of the statistics, the parameter estimation theory, the hypothesis test theory, variance analysis, and the regression analysis, etc. The students are required to learn the position and role which the mathematical statistics plays on the economics and managements, understand the basic concepts, the research objects, master the basic idea, theory and methods, and analyze the basic social and economic issues skillfully by using the method of the mathematical statistics. The course will provide students a nescessary and solid mathematical foundation for the follow-up courses, for example, econometrics. Furthermore, it will enable the students to analyze, study, and solve the various economic and social issues by using the basic idea, theory, and methods in mathematical statistics.

编 码: ST05002**Code:**ST05002**课程名称:** 抽样技术**Course Title:**Sampling Techniques**课程类别:** 学类核心**Course category:**Major Survey Course**学 分:** 3**Credit(s):**3**开课单位:** 金融与统计学院**Offering College/School:**College of Finance and Statistics

课程描述: 本课程是统计学专业的专业核心课程。通过该课程的教学使学生能够掌握抽样调查的基本概念、基本理论和基本操作技能,为学生学习相关后续专业课程“市场调查与分析”打下必不可少的基础;通过抽样技术的整个教学过程逐渐培养学生分析问题、解决问题的能力,使学生能够独立地对社会经济问题进行抽样调查方案设计、抽样数据处理、抽样误差分析以及撰写抽样调查报告;主要内容为抽样调查的基本理论和基本方法,具体包括:抽样调查的理论基础、比率估计与回归估计、简单随机抽样、分层抽样、系统抽样、整群抽样、多阶段抽样、非抽样误差分析等。

Course description: This is a core course for majors of statistics, aiming at the students' mastery of the basic concepts and theories of survey sampling and the development of their operation techniques in survey sampling, thus laying a solid foundation for their study of follow-up courses such as marketing research; The study of this course develops the students' ability to analyze and solve practical problems, and can make students do sample survey design, sample data processing, sampling error analysis and sample survey report on the socio-economic issues independently; The main contents of this course are the basic theory and methods of survey sampling, including the theoretical basis of survey sampling, estimation of ratio and regression estimation, simple random sampling, stratified random sampling, systematic sampling, cluster sampling, multi-stage sampling, non-sampling error analysis and so on.

编 码: ST05003**Code:**ST05003**课程名称:** 多元统计分析**Course Title:**Multivariate Statistical Analysis**课程类别:** 专业核心**Course category:**Required Core Course**学 分:** 3**Credit(s):**3**开课单位:** 金融与统计学院**Offering College/School:**College of Finance and Statistics

课程描述: 本课程是统计学专业的专业核心课程。通过该课程的教学使学生能够掌握多元统计分析的基本概念、基本原理和基本操作技能,为学生毕业后从事统计数据分析工作打下必不可少的基础;通过多元统计分析的整个教学过程逐渐培养学生分析问题、解决问题的能力,培养学生熟练运用多元统计方法和统计软件解决多元数据分析中各类问题的能力;主要内容为多元统计分析的基本原理和方法,具体包括:多元正态分布、均值向量和协方差阵的检验、聚类分析、判别分析、主成分分析、因子分析、对应分析、典型相关分析、偏最小二乘分析等内容。

Course description: This is a core course for majors of statistics, aiming at the students' master of the basic concepts and theories of multivariate statistical analysis and the development of their operation techniques in multivariate statistical analysis, thus laying a solid foundation for their work of data analysis. The study of this course develops the students' ability to analyze and solve practical problems in multivariate statistical analysis, to understand and use the idea and method and software of multivariate statistical analysis. The main contents of this course are the basic approaches and principles of multivariate statistical analysis, including the multivariate normal distribution, the test of mean vector and covariance matrix, the cluster analysis, the discriminant analysis, the principal component analysis, the factor analysis, the correspondence analysis, the canonical correlation analysis, partial least squares regression analysis.

编 码: ST05003**Code:**ST05003**课程名称:** 多元统计分析**Course Title:**Multivariate Statistical Analysis**课程类别:** 学类核心**Course category:**Major Survey Course**学 分:** 3**Credit(s):**3**开课单位:** 金融与统计学院**Offering College/School:**College of Finance and Statistics

课程描述: 这是一门为统计专业学生开设的专业核心课程,通过该课程的教学使学生能够掌握多元统计分析的基本概念、基本原理和基本操作技能,为学生毕业后从事统计数据分析工作打下必不可少的基础;通过多元统计分析的整个教学过程逐渐培养学生分析问题、解决问题的能力,培养学生熟练运用多元统计方法和统计软件解决多元数据分析中各类问题的能力;主要内容为多元统计分析的基本原理和方法,具体包括:多元正态分布、均值向量和协方差阵的检验、聚类分析、判别分析、主成分分析、因子分析、对应分析、典型相关分析、偏最小二乘分析等内容。

Course description: This is a compulsory course for majors of statistics, aiming at the students' master of the basic concepts and theories of multivariate statistical analysis and the development of their operation techniques in multivariate statistical analysis, thus laying a solid foundation for their work of data analysis. The study of this course develops the students' ability to analyze and solve practical problems in multivariate statistical analysis, to understand and use the idea and method and software of multivariate statistical analysis. The main contents of this course are the basic approaches and principles of multivariate statistical analysis, including the multivariate normal distribution, the test of mean vector and covariance matrix, the cluster analysis, the discriminant analysis, the principal component analysis, the factor analysis, the correspondence analysis, the canonical correlation analysis, partial least squares regression analysis.

编 码: ST05004**Code:**ST05004**课程名称:** 随机过程**Course Title:**Stochastic Processes**课程类别:** 专业核心**Course category:**Required Core Course**学 分:** 3**Credit(s):**3**开课单位:** 金融与统计学院**Offering College/School:**College of Finance and Statistics

课程描述: 本课程是统计学专业的专业核心课程。通过该课程的教学使学生能够掌握随机过程的基本概念、基本理论和基本方法, 为学生学习后续相关专业课程, 如计量经济学、时间序列分析、金融工程学等, 打下必不可少的基础; 使学生掌握运用随机过程的知识对社会经济生活中所遇到的各种问题建模和分析的各种基本方法, 逐渐培养学生分析、解决实际问题的能力; 主要内容为随机过程的基本方法和基本原理, 具体包括: 随机过程的基本概念和类型、泊松过程、马尔科夫链、二阶矩过程的均方微积分、平稳过程、鞅和随机微分方程等。

Course description: This is a core course for majors of statistics, aiming at the students' mastery of the basic concepts, theories and methods of random process and the development of their operation techniques in statistics, thus laying a solid foundation for their study of follow-up courses such as econometrics, time series analysis, financial engineering. The study of this course develops the students' ability to use the basic methods of random process to build model, and to analyze and solve practical problems. The main contents of this course are the basic approaches and principles of random process, including basic concepts and types, Poisson process, Markov chains, mean square calculus of two-order moment process, stationary process, martingale and stochastic differential equations.

编 码: ST05005**Code:**ST05005**课程名称:** 国民经济统计学**Course Title:**National economical statistics**课程类别:** 专业核心**Course category:**Required Core Course**学 分:** 3**Credit(s):**3**开课单位:** 金融与统计学院**Offering College/School:**College of Finance and Statistics

课程描述: 本课程是统计学专业的专业核心课程。通过该课程的教学使学生能够掌握国民经济统计学的基本概念、基本理论和基本技能, 为学生学习相关后续专业课程“宏观经济统计分析”打下必不可少的基础; 通过国民经济统计学的整个教学过程逐渐培养学生应用统计方法分析问题和解决宏观经济问题的实际能力, 在定性分析基础上做好定量分析, 以适应社会主义市场经济中各类问题的实证研究、科学决策和经济管理的需要; 主要内容为国民经济分类与核算方法、国内生产与国民收入核算、投入产出核算、资金流量核算、资产负债核算、国际收支核算、国民经济账户体系、国民经济价格核算与分析等。

Course description: This is a core course for majors of statistics, aiming at the students' mastery of the basic concepts and theories of national economical statistics and the development of their operation techniques in national economical statistics, thus laying a solid foundation for their study of follow-up courses such as statistical analysis for macroeconomic; The study of this course develops the students' actual ability to analyze and solve macroeconomic issues using statistical methods, and do quantitative analysis on the basis of qualitative analysis in order to meet the needs of various problems of empirical research, scientific policy-making and economic management on the socialist market economy; The main contents of this course include classification of national economy and accounting method, domestic product and national income accounting, input-output accounting, flows-of-fund accounting, assets and liabilities accounting, balance of payments accounting, system of national account, price calculation and analysis of the national economy and so on.

编 码: ST05006**Code:**ST05006**课程名称:** 时间序列分析**Course Title:**Time Series Analysis**课程类别:** 学类核心**Course category:**Major Survey Course**学 分:** 3**Credit(s):**3**开课单位:** 金融与统计学院**Offering College/School:**College of Finance and Statistics

课程描述: 本课程是金融学、保险学和统计学专业的专业核心课程，以计量经济学为前导课程，为后续课程学习提供数量分析工具。本课程主要包括 ARIMA 模型、ARCH/GARCH 模型、单位根协整检验、向量自回归模型（VAR）等内容，学生需了解时间序列分析的常见模型和分析方法，理解其含义，并能熟练运用 R 或者 MATLAB 软件来实现这些模型。通过学习本课程，学生能够熟练运用数量分析方法来分析现实中的时间序列数据，锻炼和提升数量分析能力。

Course description: This course is compulsory for the students major in Finance, Insurance and Statistics. These prerequisite courses include econometrics. This course provides quantitative analytical instruments for follow-up courses. The main contents of course include ARIMA models, ARCH/GARCH models, unit root and cointegration tests, VAR models, etc. The students will learn to the usual time series models and estimating approaches, understand their implications, and are able to estimate time series models by using R or Matlab software. This course will enable the students to analyze the practical time series data skillfully by using the econometric softwares, and train and improve their quantitative analytical ability.

编 码: ST05006

Code:ST05006

课程名称: 时间序列分析

Course Title:Time Series Analysis

课程类别: 专业核心

Course category:Required Core Course

学 分: 3

Credit(s):3

开课单位: 金融与统计学院

Offering College/School:College of Finance and Statistics

课程描述: 本课程是金融学、保险学和统计学专业的专业核心课程, 以计量经济学为前导课程, 为后续课程学习提供数量分析工具。本课程主要包括 ARIMA 模型、ARCH/GARCH 模型、单位根协整检验、向量自回归模型 (VAR) 等内容, 学生需了解时间序列分析的常见模型和分析方法, 理解其含义, 并能熟练运用 R 或者 MATLAB 软件来实现这些模型。通过学习本课程, 学生能够熟练运用数量分析方法来分析现实中的时间序列数据, 锻炼和提升数量分析能力。

Course description: This course is compulsory for the students major in Finance, Insurance and Statistics. These prerequisite courses include econometrics. This course provides quantitative analytical instruments for follow-up courses. The main contents of course include ARIMA models, ARCH/GARCH models, unit root and cointegration tests, VAR models, etc. The students will learn to the usual time series models and estimating approaches, understand their implications, and are able to estimate time series models by using R or Matlab software. This course will enable the students to analyze the practical time series data skillfully by using the econometric softwares, and train and improve their quantitative analytical ability.

编 码: ST05007**Code:**ST05007**课程名称:** 质量管理统计学**Course Title:**Quality Management Statistics**课程类别:** 专业核心**Course category:**Required Core Course**学 分:** 3**Credit(s):**3**开课单位:** 金融与统计学院**Offering College/School:**College of Finance and Statistics

课程描述: 本课程是统计学专业的专业核心课程,以概率论、统计学和数理统计学为前导课程,为实验设计和质量管理方面课程学习提供理论和方法支持。本课程主要包括质量管理概述、质量数据的描述、过程能力指数、控制图、正交实验设计、回归设计、测量系统分析和抽样检验、六西格玛管理等内容。学生需了解质量管理的基本术语,理解六西格玛管理、过程能力指数、控制图、常用抽样检验的原理,掌握过程能力指数的计算、控制图的绘制,并能灵活运用正交实验设计、回归设计、测量系统分析等方法。通过学习本课程,学生学会利用 Minitab 软件,针对实际情况来识别、分析、改善质量问题,获得解决质量管理的经验,锻炼和提升应用统计软件、原理和方法分析、解决实际质量管理问题的能力。

Course description: This is a core course for majors of statistics, aiming at the students' mastery of the basic concepts, theories and methods of quality management and the development of their operation techniques in statistics, with Probability Theory, Statistics and Mathematical Statistics as the leading course, this course provides theoretical and method support for students to study the experimental design and quality management. The main contents of this course are the basic approaches and principles of quality management statistics, including the quality management, quality data description, process capability index, control chart, variance analysis, regression analysis, orthogonal experimental design, regression design, measurement system analysis and sampling inspection, six sigma management. Students need to know of the basic terms of quality management, and understand Six Sigma management, process capability index, control chart, principle of sampling inspection, and master the calculation of process capability index and the drawing of control chart. Students also can flexibly apply the orthogonal experimental design, regression design, measurement system analysis method. Through the study of this course, students learn to use the Minitab software and obtain experience in solving the problem of quality and have the ability to work in quality management. Enhancing the application of statistical software and statistical principles and methods of analysis, students can solve the actual quality management problems and get a certain practical training.

编 码: ST05008	Code: ST05008
课程名称: 统计预测与决策	Course Title: Statistical Forecasting and Decision Making
课程类别: 专业核心	Course category: Required Core Course
学 分: 3	Credit(s): 3
开课单位: 金融与统计学院	Offering College/School: College of Finance and Statistics
课程描述: 本课程是统计专业的专业核心课程,以《数理统计》、《统计学》、《时间序列分析》为前导课程,为学生就业或升学提供了必要的基础。	

本课程主要包括回归预测、时间序列预测和风险型决策等内容,学生需了解预测和决策在统计工作中的意义和应用范围,理解各种方法的原理、特点和性质,掌握在实际应用中如何选择最有效的方法进行预测和决策,并能灵活运用统计软件实现操作。通过学习本课程,学生学会基本的统计预测和决策方法,以及各种方法在软件中的实现,获得分析实际经济问题的专业知识,锻炼和提升统计建模、数据分析、软件操作的能力。

Course description: This is a core course for major of Statistics. With Mathematical Statistics, Statistics and Time Series Analysis as leading courses, it provides the necessary foundation for the students' employment or further studies.

The course mainly includes regression forecasting, time series forecasting, and risk-decision making. Students are required to know the significance and application of forecasting and decision in statistical work, and understand the principles, characteristic and properties of those various methods. Moreover, students master in choosing a most effective model for forecasting and decision-making in application, and adopt the statistical software to operate flexibly. Through the study of this course, students learn the basic statistical forecasting and decision-making methods, as well as the operation in software, to obtain the professional knowledge to analyze economic problems, and training and improve the ability of statistical modeling, data analysis and software operation.

编 码: FI04008**Code:**FI04008**课程名称:** 经济法**Course Title:**Economic Law**课程类别:** 学类核心**Course category:**Major Survey Course**学 分:** 3**Credit(s):**3**开课单位:** 法学院**Offering College/School:**College of Law

课程描述: 这是一门为高等学校通识平台课程的学生开设的法学专业基础课, 针对通识平台的授课对象很多是非法学学生的现状, 加之在经济运行过程中人们对法律的需求, 本课程主要阐述经济组织、商品流通、商品交换、分配、消费等经济过程中的法律制度, 重在叙明经济法律的基本原理、基本制度及主要的法律规定。整个教学过程主要培养学生运用法律思维分析问题、概括问题的能力;主要内容为经济组织法律制度、交易法律制度、市场秩序法律制度、安全生产与产品质量法律制度、消费者权益保护法律制度、税收法律制度、金融法律制度、劳动与社会保障法律制度、经济纠纷解决法律制度等。

Course description: This is a basic legal course for students of general education in colleges, based in the requirements for laws in the process of economic operation. This course mainly explains the legal system in the process of economic operation, such as Economic organizations, trade, circulation of commodities, allocation, consumption and so on, especially the basic principle and system of Economic Law. The study of this course teaches students to use legal thinking to analyze and summarize the questions. The main contents of this course are about legal systems of economic organizations, transactions, the market order, safety in production and product quality, the protection of consumers' rights, taxation, financial, labor and social security, the solution of economic dispute etc.

编 码: JM03011**Code:** JM03011**课程名称:** 社会学概论**Course Title:** Introduction to Sociology**课程类别:** 学门核心**Course category:** Introductory Major Course**学 分:** 3**Credit(s):** 3**开课单位:** 法学院**Offering College/School:** College of Law

课程描述: 社会学是从社会整体出发,通过对社会关系、社会行动的分析来研究社会结构及其功能、社会过程及其原因与规律性的一门社会科学。学科最初得名于孔德,经过 K·马克思、H·斯宾塞、E·迪尔凯姆、M·韦伯等学者的不断发展,逐渐形成有独立研究对象、理论、研究方法和范式的一门社会科学。社会学研究对象包括与社会相关的历史、政治、经济、社会结构、人口变动、民族、城市、乡村、社区、婚姻、家庭与性、信仰与宗教、现代化等领域,其方法论思想是多元的,比如以 E·迪尔凯姆为代表的社会唯实论,认为人存在于社会之中,其行为和思想都并非纯粹服从于个体理性的,而是受到社会的塑造、限制乃至决定,另有以 M·韦伯为代表的社会唯名论。

Course description: Sociology is a social science which studies departure from the community as a whole, through social action and social relations to study the social structure and functions, social processes and causes and social regularity .Subjects originally named from the Comte. Marx, and developed through K •, H • Spencer, E • Durkheim, M • Weber and other scholars, and gradually formed a social science which has independent object of study, theories, research methods and paradigms. Sociology study including history, politics, economy, social structure, population change, ethnic, urban, rural, community, marriage, family and sex, faith and religion, modern and other fields. The methodology is diverse , such as the E • Durkheim as the representative of social realism, which considers that people exist in society, their actions and ideas are not merely subject to individual rationality, but shaped ,limited and even decided by society. The other methodology is the M • Weber's social nominalism.

编 码: JM03015**Code:** JM03015**课程名称:** 政治学原理**Course Title:** Principles of Political Science**课程类别:** 学门核心**Course category:** Introductory Major Course**学 分:** 2**Credit(s):** 2**开课单位:** 法学院**Offering College/School:** College of Law

课程描述: “政治学原理”是政治学与行政学、法学专业的核心课，其主要内容是介绍政治学的基本概念、基本理论，讲述现代政治的基本原则和主要制度，为今后学习政治学与行政学的其他专业课程打下基础。通过这门课程的学习，使学生了解现代政治的基本常识，增长政治智慧，掌握政治学的基本理论和研究方法，并且学会运用这些理论和方法去分析现实社会中的各种政治观点和政治现象。主要内容包括国家的产生与发展、宪法及其运行、主要的政治理论及其代表作家、民主政治的主要原则与制度等。

Course description: This is a key course for the undergraduates who are major in politics and administration, and law science, aiming at the students' mastery of the fundamental theory of political science and political philosophy, including fundamental terms, theories, principles and systems of modern democracy, etc. The study of this course, not only increases the students' consciousness of the main theories of politics, the fundamental rule of modern politics, but also increases their political wisdom and develops their ability to analyze political problems. The main contents of this course are nation-state's produce and history, main principles of democracy, constitution and its operation, citizen's fundamental rights and their protection, and so on.

编 码: LA03001**Code:**LA03001**课程名称:** 政治学原理**Course Title:**Principles of Political Science**课程类别:** 学类核心**Course category:**Major Survey Course**学 分:** 3**Credit(s):**3**开课单位:** 法学院**Offering College/School:**College of Law

课程描述: “政治学原理”是政治学与行政学、法学专业的核心课，其主要内容是介绍政治学的基本概念、基本理论，讲述现代政治的基本原则和主要制度，为今后学习政治学与行政学的其他专业课程打下基础。通过这门课程的学习，使学生了解现代政治的基本常识，增长政治智慧，掌握政治学的基本理论和研究方法，并且学会运用这些理论和方法去分析现实社会中的各种政治观点和政治现象。主要内容包括国家的产生与发展、宪法及其运行、主要的政治理论及其代表作家、民主政治的主要原则与制度等。

Course description: This is a key course for the undergraduates who are major in politics and administration, and law science, aiming at the students' mastery of the fundamental theory of political science and political philosophy, including fundamental terms, theories, principles and systems of modern democracy, etc. The study of this course, not only increases the students' consciousness of the main theories of politics, the fundamental rule of modern politics, but also increases their political wisdom and develops their ability to analyze political problems. The main contents of this course are nation-state's produce and history, main principles of democracy, constitution and its operation, citizen's fundamental rights and their protection, and so on.

编 码: LA03012**Code:**LA03012**课程名称:** 法理学**Course Title:** Jurisprudence**课程类别:** 学门核心**Course category:** Introductory Major Course**学 分:** 3**Credit(s):** 3**开课单位:** 法学院**Offering College/School:** College of Law

课程描述: 《法理学》是法学专业的一门专业必修课。通过教学使学生明确法理学的研究对象、理论体系、方法，掌握法的发展论、价值论、运行论和环境论。明白法理学是以“法是什么”为逻辑起点而展开的，从而在宏观层面上掌握法理学的主旨。通过现实生活的法律现象来掌握大量的法学基本概念、基本原理，为进一步学习部门法学奠定良好的基础。

Course description: "Jurisprudence" is a professional required course in major of law. Through teaching the students clear the research object of jurisprudence, theory system and method, master the method of ontology, axiology, circulate and environmentalism, students can understand the jurisprudence is based on what is "law" as the logical starting point. In order to grasp the main idea of jurisprudence on the macro level, students should grasp a large number of basic concept through the legal phenomenon in real life to basic principle of law for laying a good foundation for further the department law.

编 码: LA03014

Code:LA03014

课程名称: 公共政策分析

Course Title:Public policy Analysis

课程类别: 学门核心

Course category:Introductory Major Course

学 分: 2

Credit(s):2

开课单位: 法学院

Offering College/School:College of Law

课程描述: 制定和实施公共政策是政府存在的基础; 公共政策是政府实施公共管理的重要途径; 公共政策是政府维护公众利益的主要手段。公共政策分析是一门综合运用相关学科的知识和方法, 研究公共政策系统和公共政策过程, 探求公共政策运行的一般规律的科学。公共政策的功能和作用决定了这门学科的重要性

Course description: Development and implementation of public policy is basic for existence of government,public policy is an important way of government to implement public administration,public policy is the government' s primary means of maintaining the public interest.Public policy analysis is an integrated use of knowledge and methods of related disciplines to study the public policy system and the public policy process, to explore the public policy of the general laws of science .Function and role of public policy decided the importance of this discipline.

编 码: LA03015**Code:**LA03015**课程名称:** 宪法学**Course Title:**Constitutional law**课程类别:** 学门核心**Course category:**Introductory Major Course**学 分:** 3**Credit(s):**3**开课单位:** 法学院**Offering College/School:**College of Law

课程描述: 《宪法学》是全国高等教育法学专业核心课程，是法学专业本科生必修的基础法学课程。本课程既可为其他部门法学的学习提供理论基础，同时也使法科学生对我国的宪法制度及其运行有更深刻的理解。本课程以宪法学基础理论入手，分析宪法所秉持的核心理念与国家的基本制度框架。本课程将深刻地解读宪法、宪法实施、民主、人权之间的关系，将研究宪法制度与现代民族国家良好秩序的互动关系，从而使宪法理论获得坚实的社会基础；详细阐述现代典型发达国家的宪法构造及制度安排，诸如英国、美国、瑞士、瑞典等；也会介绍一些发展中国家，诸如南非等的宪法制度，从而以比较的视角来进行学习和研究。

Course description: "Constitution" is the core curriculum of law in the national Major Survey Course system. It is the basis compulsory Course for the undergraduate Law student. This course can provide a theoretical basis understand to the China's constitutional system and running. This course is helping analyzes the core philosophy of the Constitution and the basic institutional framework of the country. This course will interpret profoundly Constitution, constitutional implementation, democracy, human rights and their relationship. It will study the interaction between the constitutional system ,the good order,and the modern nation-state, in so that the constitutional theory to obtain a solid social foundation. It will elaborate the constitutional structure and the institutional arrangements of modern typical developed countries, such as Britain, the United States, Switzerland, Sweden and So.on. We will also introduce some developing countries, such as South Africa's constitutional system, so that we can carry out a comparative perspective to learning and research this subject.

编 码: LA03016**Code:**LA03016**课程名称:** 政治学原理**Course Title:**Theory of Political Science**课程类别:** 学门核心**Course category:**Introductory Major Course**学 分:** 3**Credit(s):**3**开课单位:** 法学院**Offering College/School:**College of Law

课程描述: “政治学原理”是政治学与行政学、法学专业的核心课，其主要内容是介绍政治学的基本概念、基本理论，讲述现代政治的基本原则和主要制度，为今后学习政治学与行政学的其他专业课程打下基础。通过这门课程的学习，使学生了解现代政治的基本常识，增长政治智慧，掌握政治学的基本理论和研究方法，并且学会运用这些理论和方法去分析现实社会中的各种政治观点和政治现象。主要内容包括国家的产生与发展、宪法及其运行、主要的政治理论及其代表作家、民主政治的主要原则与制度等。

Course description: This is a key course for the undergraduates who are major in politics and administration, and law science, aiming at the students' mastery of the fundamental theory of political science and political philosophy, including fundamental terms, theories, principles and systems of modern democracy, etc. The study of this course, not only increases the students' consciousness of the main theories of politics, the fundamental rule of modern politics, but also increases their political wisdom and develops their ability to analyze political problems. The main contents of this course are nation-state's produce and history, main principles of democracy, constitution and its operation, citizen's fundamental rights and their protection, and so on.

编 码: LA03017**Code:**LA03017**课程名称:** 国际政治学**Course Title:**International Politics**课程类别:** 学门核心**Course category:**Introductory Major Course**学 分:** 3**Credit(s):**3**开课单位:** 法学院**Offering College/School:**College of Law

课程描述: 《国际政治学》是研究国际政治行为体之间的政治关系及其发展变化规律的一门学科，是政治学的一个重要分支和必修专业课程。通过对《国际政治学》的教学，可以培养学生良好的国际观，为学生看待和理解国际政治提供一个系统的理论分析框架，并为学生进行国际政治的研究提供科学的研究方法，为今后进一步深入研究相关问题打下坚实的基础。

Course description: This course is intended to provide a foundation for students interested in international politics. Our goal is to provide you basic theories ,major concepts and study methods about international politcs. The course will cover the evolutione of the past international politcs,present situation of the international politics and the challenges the present world is facing. An important part of the course is a series of discussions focusing on core and hot international issues.We hope you will better understand the complex politics on the world stage after this course.

编 码: LA03018

Code:LA03018

课程名称: 行政法学

Course Title:Administrative Law

课程类别: 学门核心

Course category:Introductory Major Course

学 分: 3

Credit(s):3

开课单位: 法学院

Offering College/School:College of Law

课程描述: 课程的教学目的是, 通过向学生传授行政法学和行政诉讼法学的基本原理以及基本制度, 使得学生对我国行政法学和行政诉讼法学的基本框架有较为全面的了解,, 能够运用行政法的概念、知识和原理分析行政案例, 培养和树立依法行政, 依法办案的观念。为其将来从事公安执法的实务工作或者代理公安行政诉讼准备必要的知识和能力基础。

Course description: This is a basic course for majors of law, aiming at achieving two targets: on the one hand, it can enable the students to deeply understand the basic theory of administrative law and administrative procedural law, and it can also make the students clearly understand the status and role of administrative law in our legal system; on the other hand, it can enable students to use administrative law of thinking, logic and methods to study, analyze and understand social problems, and it can also make the students to preliminary answer and respond the social issues of administrative law. The main contents of this course include the basic principles of administrative law, administrative organization law, administrative act law and administrative supervision and redress Law.

编 码: LA03019

Code:LA03019

课程名称: 民法总论

Course Title:Civil Law (General Theory)

课程类别: 学门核心

Course category:Introductory Major Course

学 分: 3

Credit(s):3

开课单位: 法学院

Offering College/School:College of Law

课程描述: 民法总论是法学专业基础课,学习本课程,要求学生理解、掌握民法的基本概念、基本原则、体系、原理以及基础性的制度,领会民法精神,培养民法思维。同时,学习人格权知识,掌握人格权相关的法律制度。

Course description: This is a compulsory course for majors of law,the main contents of which include basic principles of civil law, sources of civil law, civil rights system, factor of civil law and civil liability, aiming at the students' mastery of the basic concepts and theories of civil law and the development of their ability to analyze and solve practical problems.



编 码: LA04003**Code:**LA04003**课程名称:** 中国法制史**Course Title:**History of Chinese Law Systems**课程类别:** 学类核心**Course category:**Major Survey Course**学 分:** 3**Credit(s):**3**开课单位:** 法学院**Offering College/School:**College of Law

课程描述: 《中国法制史》是法律专业的基础课程之一，它的研究对象就是中国法律制度发展的历史。法律是历史发展到一定阶段的产物，是阶级社会的产物，我国在夏朝就产生了法律，也就有了法律制度。它经历了奴隶制时期、封建制时期、半殖民地半封建制时期和社会主义时期。本课程讲授我国自夏、商、西周至建国前法律制度形成和发展的历史进程，以及各时期重要的立法状况和重要法律的基本内容，旨在使学生对我国法律制度的形成有个大致的了解，批判地吸收和借鉴历代法制中有益的东西，加深对法学基础理论的理解，并打好学习历史知识的基础。

Course description: The Legal History of China, which is devoted to study the developmental history of legal system of China, is one of the basic courses for the legal profession. The law is the product of a certain stage of historical development and class society. Our China has had the law in the Xia Dynasty, and therefore there was legal system. It has experienced a period of slavery, feudal period, semi colonial and semi feudal period and the period of socialism.

This course teaches the history of the formation and development process of legal system in our country, from the Xia, Shang and the Western Zhou Dynasty to the founding of the PRC, as well as the basic content of important lawmaking and laws in each period. This course aims to enable students to understand the formation of our Chinese legal system, absorb and draw lessons from learn some useful things of the history of legal system in each dynasty, grasp the basic theory of law, and lay a good foundation for the study of historical knowledge.

编 码: LA04004**Code:**LA04004**课程名称:** 国际法学**Course Title:**International Law**课程类别:** 学类核心**Course category:**Major Survey Course**学 分:** 3**Credit(s):**3**开课单位:** 法学院**Offering College/School:**College of Law

课程描述: 本课程是湖南大学法学院本科教学的核心课程之一，也是教育部所列高等学校本科法专业的十四门核心课程之一。本课程的目标主要是让学生掌握国际法的基本概念和基础知识与原理，初步了解有关国际法理论，构建一个基本的系统国际法框架，增强学习兴趣与主动性，重点培养学生发现问题以及将所学国际法知识用于分析和解决国际社会中的现实问题的能力，以加深他们对国际法适用性的认识和激励创新能力。在教学中，给学生提供听英语学术讲座和学习专业英语，并研读英文法律文献与案例的机会，使学生在英语与国际法专业知识等方面得到全面提高，从而培养既有国际法专业知识，又有双语表达能力的具有国际视野和能参与国际竞争的法律职业人才。

Course description: To provide student with an understanding of the structure and process of the international legal system; In the course of teaching student the legal aspects of international relations, it is also hoped that student will gain an insight into the political environment in which it operates. Yet, while the subject is somewhat less oriented towards legal concepts and techniques, it constitutes at the same time an integral part of the study of law, given its legal roots, normative nature, terminology and analytical method. Student be thus developing the important legal skills; More specifically, student will be exposed to international law sources and research techniques; It is hoped that at the end of the course, student will be able to assess the role of international law in today's world.

编 码: LA04005**Code:**LA04005**课程名称:** 刑法总论**Course Title:**Criminal Law (General Theory)**课程类别:** 学门核心**Course category:**Introductory Major Course**学 分:** 4**Credit(s):**4**开课单位:** 法学院**Offering College/School:**College of Law

课程描述: 《刑法总论》是刑法学的重要组成部分，是高等院校法学专业学生必修的核心课程。刑法总论主要以现行刑法典总则为研究对象，其内容主要包括：刑法概说、犯罪概念与犯罪构成、正当行为、故意犯罪停止形态、共同犯罪、罪数、刑事责任和刑罚。通过本课程的教学，使学生掌握我国刑法典总则的规定，掌握刑法学总论的基本理论和基础知识，能够运用刑法规定和刑法理论分析刑法案例，解决实际问题，并通过教学提高学生的法学思维能力和法学创新能力，培养学生的刑事法制观念，为学习刑法分论及其他专业课程奠定基础。

Course description: General Theories of criminal law is an important part of the science of criminal law, which is a core course for the law major students in the higher Educational Institutions. Its main research object is general provisions of criminal law code in the present Chinese Criminal Law. Its main contents include: outline of criminal law, the concept of crime and the constitution of crime, justifiable acts, the suspended situation of the intentional crime, joint crime, the form of quantity of crime, the criminal responsibility and penalty. Teaching of the course can make the students master the general provisions of the penal code, grasp the basic theory and basic knowledge of general provision of Criminal Law, use the criminal law and its theories to analyze the criminal law cases, solve practical problems, and through the teaching to improve the students' Legal thinking ability and innovation ability, cultivate students' criminal legal concepts, and build a foundation for the study of the part two of criminal law and other professional courses.

编 码: LA04006

Code:LA04006

课程名称: 刑事诉讼法

Course Title:Criminal procedure law

课程类别: 专业核心

Course category:Required Core Course

学 分: 4

Credit(s):4

开课单位: 法学院

Offering College/School:College of Law

课程描述: 本课程是法学专业学门核心课。通过本课程学习, 掌握刑事诉讼法学的基本概念、基本原理及基本程序, 最终了解和掌握刑事诉讼法的基本内容和精神内核, 具有初步的司法运用能力。

Course description: The course is impulsive course for students major in law science. o take knowledge of basic conceptions and principles of criminal procedure law, and to have the ability to apply these in practice.



编 码: LA04007**Code:**LA04007**课程名称:** 民事诉讼法**Course Title:**Civil Litigation Law**课程类别:** 专业核心**Course category:**Required Core Course**学 分:** 4**Credit(s):**4**开课单位:** 法学院**Offering College/School:**College of Law

课程描述: 本课程为法律类必修的专业基础课, 是一门实践性很强的应用学科。教学以民事诉讼理论为指导, 以民事诉讼立法为依据, 以民事审判实践经验为基础, 采用理论、立法和实践相结合的方法进行, 使学生掌握民事诉讼法的基本理论、立法精神和实践经验, 了解民事诉讼理论的新发展, 民事诉讼立法的新动向和民事审判实践中的新问题, 通过理论与实践相结合的方法、历史与比较相结合的方法、程序与实体相结合的方法, 培养学生独立思考的习惯和发现、分析、解决民事诉讼实际问题的能力。

Course description: This course is a required professional basic course of law major and an application subject with strong practicality. Directed by theory of Civil Procedure, in accordance with legislation of Civil Procedure and based on Civil Judgment experience, this course operates by combining theory, legislation and practice experience, leads students to gain the basic theory, legislation spirit and practice experience of Civil Procedure Law, to comprehend the new development of Civil Procedure Theory, the new movement of Civil Procedure Legislation and the new problems of Civil Judgment Practice. This teaching also teaches students to think independently and trains students the ability of finding, analyzing and solving practical problems in Civil Procedure by combining theory and practice, history and comparison, procedure and entity.

编 码: LA04008

Code:LA04008

课程名称: 西方法律思想史

Course Title:History of Western Legal Thoughts

课程类别: 学类核心

Course category:Major Survey Course

学 分: 2

Credit(s):2

开课单位: 法学院

Offering College/School:College of Law

课程描述: 西方法律思想史是法学专业的一门基础理论学科, 主要通过对西方历史法律思想的介绍, 使学生了解西方法律思想的发展历程, 加深对人类优秀法律文化和思想的来龙去脉及其演变历史的理解, 为深入学习和研究法学提供一定的理论基础和知识背景。本课程是法学专业学生的一门学科核心课程, 总课时为 32 学时。

Course description: As a basic theoretical course of legal science, the History of Western Legal Thoughts is designated to help students get a general idea the evolution of western legal thoughts, deepen their understanding of law and enrich their knowledge of legal theories and the relevant background. It is a core course, total periods 32.



编 码: LA04011**Code:**LA04011**课程名称:** 商法学**Course Title:**Commercial Law**课程类别:** 学类核心**Course category:**Major Survey Course**学 分:** 4**Credit(s):**4**开课单位:** 法学院**Offering College/School:**College of Law

课程描述: 通过教师课堂授课, 让学生掌握扎实的商法学基本原理和公司法(另选)、破产法(另选)、证券法、信托法、票据法、保险法和海商法(另选)等的基本制度知识。

通过组织学生进行课堂讨论, 培养学生运用商法学基本理论与基本制度发现、分析和解决实际问题的能力, 从而达到学以致用目的。

Course description: Commercial law is a mandatory course for graduates of Law. As fundamental legal systems of market economy, Commercial law plays a very important role in the whole legal system. The course aims to help the students know the latest development of legislation and judicature of commercial law and understand and grasp the commercial entity, commercial course, commercial property and basic market administration. The course includes fundamental theory of commercial law, corporate law, securities law, insurance, partnership law, negotiable instrument law, marine law and trust law.

编 码: LA04012**Code:**LA04012**课程名称:** 宗教学**Course Title:**Study of the Religions**课程类别:** 学类核心**Course category:**Major Survey Course**学 分:** 3**Credit(s):**3**开课单位:** 法学院**Offering College/School:**College of Law

课程描述: 本课程是政治学与行政学专业的核心课程,以政治学原理为前导课程,为政治学与行政学方面课程学习尤其是国际政治提供坚实的中西传统宗教的思想基础。本课程包括宗教的要素、宗教的本质与功能、宗教的起源于发展、佛教概述、基督教概述、伊斯兰教概述和道教概述。学生需要了解宗教的基本要素、宗教的起源、本质、功能,理解宗教学的发展过程和基本脉络,掌握世界几大宗教的基本历史及其对政治学与学的影响,并能灵活运用经典宗教学理论来解读当前世界宗教引发的热点问题,能很好地认识世界宗教的历史和现状,以便更好地与世界各国人民进行交往和正确处理各种国际问题。通过本课程的学习,学生学会用宗教学的视角来认识各种宗教之间和各种宗教内部所产生的种种矛盾及其对国际社会生活产生的重要影响,尤其对国际的热点问题有深入的判断。

Course description: This is a professional basic courses offered for students of political science and administration. This course study of world religions, the use of the comparison, text research, social surveys and other methods to study the origin, development and content of the religious. Explore the role of religion on individuals and society, and to properly handle and deal with a variety of religious issues, improve students' humanistic quality.

编 码: LA04013

Code:LA04013

课程名称: 当代中国政府与
政治

Course Title:Chinese Government and Politics

Course category:Major Survey Course

课程类别: 学类核心

Credit(s):3

学 分: 3

Offering College/School:College of Law

开课单位: 法学院

课程描述: 本课程是政治学与行政学专业以及相关专业的专业基础课程。课程的任务是使学生对当代中国政治与政府体制有一个全面清晰的了解, 能对当前的政治与行政体制改革作一些有益的思考。该课程涵盖了人民代表大会制度、基层民主制度、协商民主制度、国家行政制度、国家结构制度、政党制度、政协制度、选举制度、政府与政治过程等具体内容。

Course description: This course is a basic one for the major of politics and public administration. The task of this course is to make the students have a clear understanding about the contemporary Chinese politics and government system, and make some useful thinking about the current political and administrative system reform. This course covers some specific topics, such as the people's congress system, grassroots democracy, deliberative democracy, public administrative system, state structure system, political party system, electoral system, and the governmental and the political process.

编 码: LA04014**Code:**LA04014**课程名称:** 比较政治制度**Course Title:**Comparative Political System**课程类别:** 学类核心**Course category:**Major Survey Course**学 分:** 3**Credit(s):**3**开课单位:** 法学院**Offering College/School:**College of Law

课程描述: 这是一门为政治学与行政学、法学专业学生开设的专业核心课。通过该课程的教学使学生能够了解外国的政治制度,包括政府的产生、组成、职能,各政府机构之间的关系以及政府与民众之间的关系等。通过本课程的学习,使学生对现代政府的组织原则和现代政治的基本规则有所了解,同时还能增长些许政治智慧,提高分析政治问题的能力和水平。主要内容包括现代国家的组织原则、宪法及其运行、公民的基本权利与义务、选举制度、政党制度、行政制度等。

Course description: This is a key course for the undergraduates who are major in politics and administration, and law science, aiming at the students' mastery of main foreign countries' government systems, including government's produce, structure, function, etc. The study of this course, not only increases the students' consciousness of the organizational principle of modern government, the fundamental rule of modern politics, but also increases their political wisdom and develops their ability to analyze political problems. The main contents of this course are foreign countries' government systems, including organizational principle of Hesperian governments, constitutions and their operation, citizen's fundamental rights and obligations, electoral systems, party systems, bureaucracy, and so on.

编 码: LA04015

Code:LA04015

课程名称: 行政诉讼法

Course Title:Administrative Litigation Law

课程类别: 学类核心

Course category:Major Survey Course

学 分: 2

Credit(s):2

开课单位: 法学院

Offering College/School:College of Law

课程描述: 通过学习,了解行政诉讼法的概念与功能;行政诉讼的基本原则;行政诉讼的受案范围、管辖、诉讼参加人、行政诉讼证据、行政诉讼举证原则、行政诉讼程序、起诉、受理、审理判决和执行等。

Course description: This is a basic course for majors of law, aiming at achieving two targets: on the one hand, it can enable the students to deeply understand the basic theory of administrative law and administrative procedural law, and it can also make the students clearly understand the status and role of administrative law in our legal system; on the other hand, it can enable students to use administrative law of thinking, logic and methods to study, analyze and understand social problems, and it can also make the students to preliminary answer and respond the social issues of administrative law. The main contents of this course include the basic principles of administrative law, administrative organization law, administrative act law and administrative supervision and redress Law.

编 码: LA04016**Code:**LA04016**课程名称:** 经济法学**Course Title:**Law of Economy**课程类别:** 学类核心**Course category:**Major Survey Course**学 分:** 4**Credit(s):**4**开课单位:** 法学院**Offering College/School:**College of Law

课程描述: 《经济法学》是一门为法学专业学生开设的重要的专业核心课程，以民法、侵权法为前导课程，为相关后续专业课程，如银行法、税法、劳动与社会保障法等的学习，奠定良好的基础。本课程主要包括经济法学的基本原理和法律制度，具体包括：市场规制法的基本原理、宏观调控法的基本原理、反垄断法、反不正当竞争法、消费者权益保护法、产品质量法、金融法、财税法等内容。学生需理解、掌握经济法学的基本概念和基本理论，并能灵活运用经济法学的相关制度。通过学习本课程，学生学会分析法律问题、获得概括法律问题的能力，锻炼和提升学生能够比较熟练的运用所学的经济法律法规来解决经济纠纷的能力。

Course description: Economic Law is a basic and important course for majors of law, taking civil law and tort law as the leading courses, thus laying a solid foundation for their study of follow-up courses such as the banking law, tax law, labor and social security law. The main contents of this course are principles and the institutions of economic law, including the basic principles of market regulation law and macro-control law, antimonopoly law, anti-unfair competition law, consumer protection law, product quality law, financial law and taxation law, etc. Students need to understand and master basic concepts and theory of economic law, and can use the relevant legal system of economic law flexibly. Through the study of this course, students learn to analyze the legal issues and to obtain the ability to generalize the legal questions, and to resolve economic disputes by understanding and using the economic law and regulations learned.

编 码: LA04018

Code:LA04018

课程名称: 婚姻家庭与继承法

Course Title:Law of Marriage,Family and Inheritance

课程类别: 学类核心

Course category:Major Survey Course

学 分: 2

Credit(s):2

开课单位: 法学院

Offering College/School:College of Law

课程描述: 这是一门为法学专业学生开设的专业拓展课,通过该课程的教学使学生能够掌握婚姻继承法的基本概念、基本理论,从而达到案件的适用。通过对该课程的学习,需要培养学生对婚姻继承法中的问题进行分析与解决的能力。主要内容为婚姻继承法中基本原理与基本制度,具体包括:婚姻、结婚、离婚、无效婚姻、夫妻共同财产,继承、法定继承、遗嘱继承、继承的顺序、遗赠、代位继承、转继承等。

Course description: This is a basic course for majors of law, aiming at the students' mastery of the basic concepts and theories of Law of Family and Succession, thus developing the students' ability to analyze and solve the practical problems. The main contents of this course are the basic approaches and principles of Law of Family and Succession, including the concept of marriage, divorce, annulment of marriage, jointly owned property, inheritance, legal succession, intestate succession, the order of succession, legacy, subrogation inheritance, transfer inheritance.

编 码: LA05002

Code:LA05002

课程名称: 国际经济法

Course Title:International economic law

课程类别: 专业核心

Course category:Required Core Course

学 分: 3

Credit(s):3

开课单位: 法学院

Offering College/School:College of Law

课程描述: 《国际经济法》是法学专业的一门必修课,目的是使学生了解国际经济法的核心内容,并能学以致用,达到能分析国际经济领域中不断出现的法律问题的水平,并能为我国对外经济立法和司法提供可借鉴的意见。

Course description: International Economic Law is one of the 14 key course of legal science,aiming at the students' mastery of the key contents of International Economical Law. This course is divided into 6 parts. Part one discusses basic theoretical problems , such as the concept,structure,and subjects of international economic law. Part two examines the legal system of international trade.Part three studies the legal system of international investment. Part four explores the legal system of international finance.Part five dicusses the international taxation.Part six examines the legal system of international economic disputes settlement.

编 码: LA05003**Code:**LA05003**课程名称:** 国际私法**Course Title:**Private International Law**课程类别:** 专业核心**Course category:**Required Core Course**学 分:** 3**Credit(s):**3**开课单位:** 法学院**Offering College/School:**College of Law

课程描述: 国际私法是法学院本科生的必修课,它是一门综合性的法律学科,与其它法律学科诸如宪法学、民商法学、婚姻法学、民事诉讼法学、国际公法学、国际贸易法学、国际投资法学等联系紧密、相互补充、相辅相成,调整国际经济交往和国际民事往来中产生的各种法律关系。该课程通过对国际私法基本原理、基本规范、涉外民事关系的法律适用以及国际民事诉讼和国际商事仲裁的讲授,使学生掌握国际私法的相关知识并能运用于涉外民商事案件的解决与分析。

Course description: This is a basic course for majors of law, aiming at the students' mastery of the situations and kinds of conflicts of laws in legal relationship involving foreign elements, and the relevant resolutions, especially by the way of conflict law. It focuses on the basic concepts and theories of conflict law, formulae of attribution, and the choice of *lex causae* in various categories, in order that the students can choose applicable law correctly when then face civil or commercial cases involving foreign elements. The main contents of this course are the basic approaches and principles of choice of laws, the major institutions and theories of conflict law, and the rules of choice of law in the areas of property, contract, torts and so on.

编 码: LA05004

Code:LA05004

课程名称: 物权法

Course Title:Property Law

课程类别: 学类核心

Course category:Major Survey Course

学 分: 3

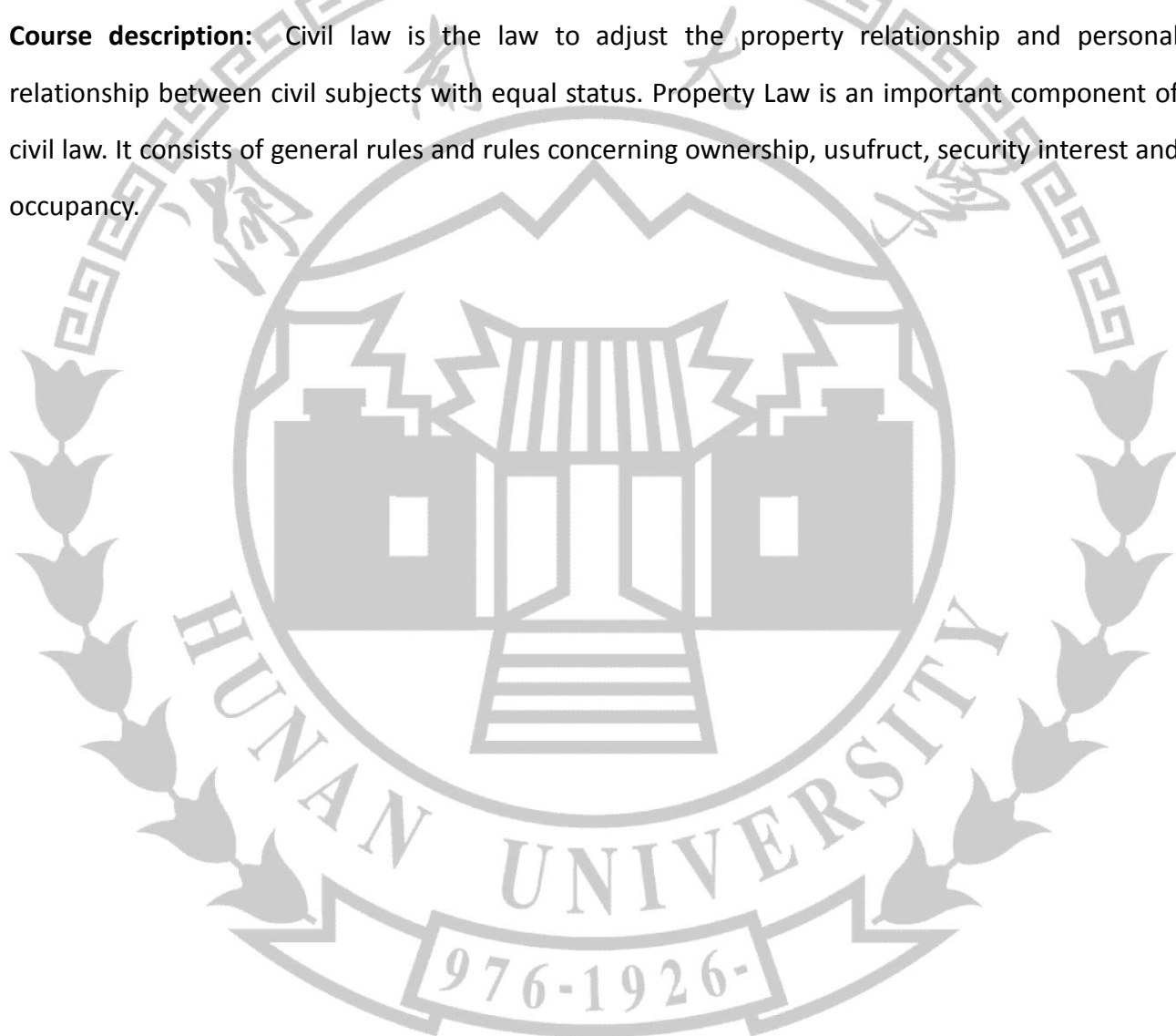
Credit(s):3

开课单位: 法学院

Offering College/School:College of Law

课程描述: 民法是调整平等主体之间的财产关系和人身关系的法律。物权法是民法的重要组成部分。物权法主要包括总论、所有权、用益物权、担保物权与占有四个大部分。

Course description: Civil law is the law to adjust the property relationship and personal relationship between civil subjects with equal status. Property Law is an important component of civil law. It consists of general rules and rules concerning ownership, usufruct, security interest and occupancy.



编 码: LA05005**Code:**LA05005**课程名称:** 债权法**Course Title:**Law of Obligation**课程类别:** 学类核心**Course category:**Major Survey Course**学 分:** 4**Credit(s):**4**开课单位:** 法学院**Offering College/School:**College of Law

课程描述: 本课程是法学专业的专业核心课程,以民法总论、物权法为前导课程,为法学方面课程学习提供基础知识。本课程主要包括债法一般理论、合同法和侵权法等内容,学生需了解债与债法概念、债的类型、不当得利与无因管理、合同成立与生效、合同的履行、合同的履行障碍、合同保全、违约责任、侵权责任构成要件与具体侵权类型等内容。通过本课程的学习,要求学生学会债的一般理论、合同基本原理,合同订立,成立和生效的区别,合同效力类型,合同履行方式;合同变更与转让,违约责任,合同具体类型,侵权构成要件及侵权责任等内容。并要求学生熟悉民法的具体规范,掌握债权法的知识理论体系,锻炼和提升债权法实践能力,并能灵活运用债权法理论知识解决民事纠纷和处理具体的民事案件。

Course description: The obligation law is one of the core courses of legal science. The obligation law mainly includes the three parts:the general theory of obligation law, contract law, tort law . the general theory of obligation law mainly introduces applicable to all of the debt law of common rules, including the concept and types of debt、the debt law, the occurrence and change of debt, unjust enrichment and not because of the content of management, debt guarantees. The contract law mainly includes the general theory of contract law and contracts. General theory of contract law covers the establishment and effectiveness of contract, performance of the contract, transfer of the rights and obligations under the contract, breach of contract liability and contract rights duty elimination; sub-contract law includes fifteen types of named contracts. The tort law includes the liability principle of tort law, the general tort, the special tort and so on. Through the study of this course, we should make the students get the basic concepts, basic system and basic theory of debt, contract and tort liability. Through the teaching process, the students have the ability to find the problem, logical reasoning ability and self-learning ability, but also pay special attention to cultivate students' ability to analyze problems and solve problems.

编 码: LA05006

Code:LA05006

课程名称: 知识产权法

Course Title:Intellectual Property Law

课程类别: 专业核心

Course category:Required Core Course

学 分: 3

Credit(s):3

开课单位: 法学院

Offering College/School:College of Law

课程描述: 本课程主要学习著作权法、专利法和商标法。

Course description: The course in Intellectual Property Law covers all the main forms of intellectual property, principally, copyright, patent and trade mark.



编 码: LA05009**Code:**LA05009**课程名称:** 刑法分论**Course Title:** Specific Theories of Criminal Law**课程类别:** 学类核心**Course category:** Major Survey Course**学 分:** 3**Credit(s):** 3**开课单位:** 法学院**Offering College/School:** College of Law

课程描述: 《刑法分论》是刑法学的重要组成部分，是高等院校法学专业学生必修的核心课程。刑法分论主要以现行刑法典分则为研究对象，其内容主要包括：刑法分则的条文结构（罪名、罪状和法定刑）、危害国家安全罪、危害公共安全罪、破坏社会主义市场经济秩序罪、侵犯公民人身权利、民主权利罪、侵犯财产罪、妨害社会管理秩序罪、贪污贿赂罪、渎职罪等。通过本课程的教学，使学生掌握我国刑法分则规定的具体犯罪的构成要件和法定刑，能够运用刑法规定和个罪构成要件理论分析刑法案例，解决实际问题，并通过教学提高学生的法学思维能力和法学创新能力，培养学生的刑事法制观念，为学习其他专业课程奠定基础。

Course description: Specific theories of criminal law is an important part of criminal law, which is a core course for the law major students in the higher Educational Institutions. Its main research object is specific provisions of criminal law code about specific crimes. Its main contents include: the survey of specific provisions, crimes of endangering national security, crimes of endangering public security, crimes of disrupting the order of the socialist market, crimes of infringing upon citizen's right of the person and democratic rights, crimes of property violation, crimes of obstruction the administration of public order, crimes of embezzlement and bribery, and crimes of dereliction of duty. Teaching of the course can make the students master the specific provisions of the Criminal Law code, grasp the basic knowledge of specific provisions of Criminal Law, use the criminal law and the theories of the constitution of crime to analyze the criminal law cases, solve practical problems, improve the students' Legal thinking ability and innovation ability, cultivate students' criminal legal concepts, and build a foundation for the study of other professional courses.

编 码: LA05011**Code:**LA05011**课程名称:** 环境与资源保护法**Course Title:**Environmental and Resources Protection Law**课程类别:** 专业核心**Course category:**Required Core Course**学 分:** 2**Credit(s):**2**开课单位:** 法学院**Offering College/School:**College of Law

课程描述: 本课程是法学专业的专业核心课程,以宪法、民法、行政法为前导课程,为法学方面课程学习提供环境与资源保护领域的法学理论讲授。本课程主要包括环境与资源保护法的目的、基本原则、基本制度、自然资源保护法和利用和污染防治法等内容,学生需了解环境与资源保护法学的主要研究对象、学科特色;理解与自然资源保护法与自然资源物权的关系,行政许可制度在环境与资源保护法上的特殊性、侵权法在环境污染和破坏侵权上的具体应用;掌握环境与资源保护法的目的、基本原则、基本制度;并能灵活运用生态补偿制度、土地规划与用途管制制度、排污许可制度等思考现行法律规范、审视现实中的大量环境违法行为。通过学习本课程,学生学会将宪法、民法、行政法的基础理论与环境与资源保护法的理论相衔接,理解体系化的学习方法,获得环境与资源保护法作为应用法学的初步认识,锻炼和提升将环境与资源保护法学的理解能力、运用能力等。

Course description: This course belongs to the legal professional curriculum. Contents include environmental and resources protection and development, overview of basic theory and legal system, and its basic principle, basic system, the protection of natural resources, environment pollution prevention, environmental management system and supervision and management system, environmental legal responsibility. Through the study on the content of the system, students can completely understand the basic theory of environment and resources protection and environmental legal system knowledge with the spirit of the main content, train students to use the basic theory of environmental protection and environmental laws and regulations to analyze and solve problems of environmental laws, enhance students' ability to use legal rights and environmental protection to protect the ecological environment of consciousness.

编 码: LA05012**Code:**LA05012**课程名称:** 劳动与社会保障法**Course Title:**Labor Law and Social Security Law**课程类别:** 专业核心**Course category:**Required Core Course**学 分:** 2**Credit(s):**2**开课单位:** 法学院**Offering College/School:**College of Law

课程描述: 本课程是法学专业的专业核心课程,以法学基础理论、民法为前导课程,为劳动与社会保障法课程学习提供基础知识。本课程主要包括劳动法的基本理论、劳动法律关系、劳动合同法、集体合同法、社会保障法、劳动争议调解仲裁法等内容。

通过学习本课程,学生须掌握劳动法学的基本理论、基本知识,了解劳动与社会保障法的理论前沿动态,获得灵活运用劳动与社会保障法的专业知识分析和解决各类劳动与社会保障法问题的能力,为将来协调劳动关系、处理劳动争议以及进行劳动法学研究奠定基础。

Course description: This is a set of specialized courses for the undergraduate majoring in law.

By means of teaching labor law, help them mastering the basic theory, fundamental knowledge as well as comprehending the system of labor law and important legal norms and its important position in the legal system; bringing up their ability to solve all kinds of labor issues.

Only in these ways can they lay the foundation for coordinating labor relations and dealing labor disputes.

The content of courses includes: Basic Theory of labor law, Brief History of Labor Legislation, Coordination of Labor Relations, Laboring Standards, Labor Security, Labor Dispute, Labor Supervision and Legal Responsibility etc.

编 码: LA06006**Code:**LA06006**课程名称:** 外国法制史**Course Title:**History of Foreign Law Systems**课程类别:** 学类核心**Course category:**Major Survey Course**学 分:** 2**Credit(s):**2**开课单位:** 法学院**Offering College/School:**College of Law

课程描述: 外国法制史是法律史学的重要组成部分，是法学基础学科之一。外国法制史的研究对象包括：历史上不同类型的、具有代表性的法律制度的产生、发展和演变的规律；不同类型的、有代表性的法律制度的内容、本质及表现形式；不同类型的法律制度的实施情况；不同类型的法律制度在不同历史发展阶段上对经济的发展、政治的演变和文化的进步所产生的作用。外国法制史不仅要说明这些法律制度“是什么”，还要揭示其背后的“为什么”。因此，外国法制史作为大学法律教育的专业基础课程，在法学学科体系中有着不可替代的重要地位。外国法制史通过比较研究和历史考察，合理借鉴外域法律文化，特别是近代以来西方法律文化的有益经验，在培养高层次法学专门人才中扮演着重要的角色。

Course description: Foreign legal history is an important part of legal history, and one of the basic disciplines of law. The research objects of foreign legal history encompass a broad and complex topics, such as the basic laws of production, development and evolution of the different and representative legal systems historically; the content, essence and form of the different and representative legal systems; the implementation of the different legal systems; the effect to the development of economy, the evolution of politics, and the progress of culture due to the different types of legal system in different historical stage. Foreign legal history is devoted to not only explain what are these legal systems, but reveal the reasons why are these legal systems so. Therefore, Foreign legal history, as a professional basic course of legal education at university, has an irreplaceable important position in disciplinary system of law. Foreign legal history plays an important role in the cultivation of high level legal talents by means of comparative study and historical study, as well as reasonable reference from foreign legal culture especially the beneficial experience of the western legal culture in modern times.

编 码: PA04002**Code:**PA04002**课程名称:** 社会学概论**Course Title:**Introduction to Sociology**课程类别:** 学类核心**Course category:**Major Survey Course**学 分:** 3**Credit(s):**3**开课单位:** 法学院**Offering College/School:**College of Law

课程描述: 社会学是从社会整体出发,通过对社会关系、社会行动的分析来研究社会结构及其功能、社会过程及其原因与规律性的一门社会科学。学科最初得名于孔德,经过 K·马克思、H·斯宾塞、E·迪尔凯姆、M·韦伯等学者的不断发展,逐渐形成有独立研究对象、理论、研究方法和范式的一门社会科学。社会学研究对象包括与社会相关的历史、政治、经济、社会结构、人口变动、民族、城市、乡村、社区、婚姻、家庭与性、信仰与宗教、现代化等领域,其方法论思想是多元的,比如以 E·迪尔凯姆为代表的社会唯实论,认为人存在于社会之中,其行为和思想都并非纯粹服从于个体理性的,而是受到社会的塑造、限制乃至决定,另有以 M·韦伯为代表的社会唯名论。

Course description: Sociology is a social science which studies departure from the community as a whole, through social action and social relations to study the social structure and functions, social processes and causes and social regularity .Subjects originally named from the Comte. Marx,and developed through K •, H • Spencer, E • Durkheim, M • Weber and other scholars,and gradually formed a social science which has independent object of study, theories, research methods and paradigms.Sociology study including history, politics, economy, social structure, population change, ethnic, urban, rural, community, marriage, family and sex, faith and religion, modern and other fields. The methodology is diverse , such as the E • Durkheim as the representative of social realism, which considers that people exist in society, their actions and ideas are not merely subject to individual rationality, but shaped ,limited and even decided by society. The other methodology is the M • Weber's social nominalism.

编 码：PA04006

Code:PA04006

课程名称：管理定量分析

Course Title:Quantitative Analysis of Management

课程类别：学类核心

Course category:Major Survey Course

学 分：3

Credit(s):3

开课单位：法学院

Offering College/School:College of Law

课程描述： 本课程是行政管理专业的学类核心课程。

Course description: This course is one of core modules for students majoring in public administration.



编 码: PA04007**Code:**PA04007**课程名称:** 公共管理学**Course Title:**Public Management**课程类别:** 学类核心**Course category:**Major Survey Course**学 分:** 3**Credit(s):**3**开课单位:** 法学院**Offering College/School:**College of Law

课程描述: 随着新公共管理运动的兴起与发展,公共管理学逐渐成为一门相对独立的学科。公共管理学是运用管理学、政治学、经济学、法学、社会学、系统科学等多学科理论与方法研究公共组织及其管理的知识体系,尤其是政府组织的管理活动及其规律性的一门科学。它是一个科际整合的交叉学科,是以解决公共问题为导向的应用性学科。其目的是促使公共组织尤其是政府组织更有效地提供公共产品和公共服务。公共管理学作为一门新兴学科,诞生于 20 世纪 70 年代的美国,我国则兴起于 20 世纪 90 年代。公共管理学既是一门学科的知识体系,也是一种新的时代文明。本课程作为各相关专业学生的通识课程和管理科学专业学生的必修课程,对拓宽学生的知识面,培养学生的公共管理技能,训练学生的独立思维能力,生成学生的公共责任和公共精神,从而提高学生的公共事务管理水平与服务质量都具有一定的作用和意义。

Course description: With the rise and development of the new public management movement, public administration has become a relatively independent discipline. Public administration is the use of management science, political science, economics, law, sociology, science of system of public organization multidisciplinary theories and methods of discipline system, especially a course about scientific and regular management activities of government. It is an interdisciplinary subject group, and it is the application of science to solve public problems. Its purpose is to promote the public organizations to provide more efficient provision of public goods and services, especially government organizations. Public management as a new subject which was born in nineteen seventies in the United States, China has the rise in nineteen nineties. Public administration is not only a discipline knowledge system, but also a new era of civilization. This course as a compulsory course for the students of general education and management science students, it has the role and significance in broadening the knowledge, training management skills and thinking training and improving the public affairs management level and service quality.

编 码：PA04008

Code:PA04008

课程名称：公共政策分析

Course Title:Public policy Analysis

课程类别：学类核心

Course category:Major Survey Course

学 分：3

Credit(s):3

开课单位：法学院

Offering College/School:College of Law

课程描述： 制定和实施公共政策是政府存在的基础；公共政策是政府实施公共管理的重要途径；公共政策是政府维护公众利益的主要手段。公共政策分析是一门综合运用相关学科的知识和方法，研究公共政策系统和公共政策过程，探求公共政策运行的一般规律的科学。公共政策的功能和作用决定了这门学科的重要性。

Course description: Development and implementation of public policy is basic for existence of government,public policy is an important way of government to implement public administration,public policy is the government' s primary means of maintaining the public interest. Public policy analysis is an integrated use of knowledge and methods of related disciplines to study the public policy system and the public policy process, to explore the public policy of the general laws of science . Function and role of public policy decided the importance of this discipline.

编 码：PA04009

Code:PA04009

课程名称：法学概论

Course Title:Introduction to Law Science

课程类别：学类核心

Course category:Major Survey Course

学 分：3

Credit(s):3

开课单位：法学院

Offering College/School:College of Law

课程描述：这是一门为李达班学生开设的法学专业基础课，通过该课程的教学使学生能够掌握法学的基本概念、基本理论和基本技能，为学生学习相关后续专业课程，打下必不可少的基础；法学概论的整个教学过程主要培养学生运用法律思维分析问题、概括问题的能力；主要内容为法学的基本方法和基本原理介绍，具体包括：法理学、中国法制史、宪法、行政法、刑法、民法、诉讼法、经济法、国际法等。

Course description: This is a basic legal course for students of Lida's, aiming at the students' mastery of the basic concepts, theories and skills of law, thus laying a solid foundation for their study of follow-up courses. The study of this course develops the students' ability to analyze and summarize with legal thinking. The course mainly introduces the basic methodology and principles of law, including Jurisprudence, the legal history of China, the Constitution, Administrative Law, Criminal Law, Civil Law, Procedure Law, Economic Law and International Law etc.

编 码: PA04011**Code:**PA04011**课程名称:** 区域公共治理**Course Title:**Regional public governance**课程类别:** 学类核心**Course category:**Major Survey Course**学 分:** 3**Credit(s):**3**开课单位:** 法学院**Offering College/School:**College of Law

课程描述: 区域公共治理以区域公共问题以及着力于解决区域公共问题的制度和政策为研究对象。本课程着重介绍区域公共治理的基本概念、基本理论和分析方法。区域公共治理提供了一个分析框架用以思考区域公共问题的性质、政府在区域公共问题方面的职能范围、其他主体在区域公共问题方面的功能、区域内政府和其他主体的关系。因此,本课程将会涉及到区域主义、新区域主义、治理理论,区域公共问题,区域治理主体及其职能范围,区域公共治理的制度安排和区域公共产品供给。区域公共治理结合了规范分析和实证分析方法。学习本课程要求学生具有政治学和公共管理学的基础知识。

Course description: Regional public governance is the study of regional public problems and their solutions in institution and policy. At its most basic level, regional public governance provides a framework for thinking about the features of regional public governance, role of governments and other entities concerning the solutions of regional problems as well as the relationship among those entities. Inherently, this subject encompasses a host of topics including regionalism, new regionalism, and theory of governance, regional common problems, and functions of different entities participating to solve the problems, regional institution and supply of regional public goods. Basic Knowledge of politics and public administration is required.

编 码: PA04012**Code:**PA04012**课程名称:** 社会科学研究方法**Course Title:**Research Methods in Social Sciences**课程类别:** 学类核心**Course category:**Major Survey Course**学 分:** 3**Credit(s):**3**开课单位:** 法学院**Offering College/School:**College of Law

课程描述: 在本课程体系中,在系统介绍社会研究方法的基础上,根据本科生的基础和应用实践,重点讲述调查研究这一研究方法。社会调查是社会研究中最为常见,同时也是运用最多的一种方式。社会调查是一种采用自填式问卷或结构式访问的方法,通过直接的询问,从一个取自总体的样本那里收集系统的、量化的资料,并通过对这些资料的统计分析来认识社会现象及其规律的社会研究方式。在本课程中,将社会调查方法的基本概念、基本内容与实际操作过程紧密结合,运用大量实例,通俗简明地介绍了各种资料收集与分析方法,使学生能很好掌握从选择调查题目开始,直到完成调查报告为止的整个社会调查过程。

Course description: Surveys represent one of the most common types of quantitative, social science research. In survey research, the researcher selects a sample of respondents from a population and administers a standardized questionnaire to them. The questionnaire, or survey, can be a written document that is completed by the person being surveyed, an online questionnaire, a face-to-face interview, or a telephone interview. Using surveys, it is possible to collect data from large or small populations.

编 码：PA05001

Code:PA05001

课程名称：行政管理学原理

Course Title:The Principles of Administration

课程类别：专业核心

Course category:Required Core Course

学 分：3

Credit(s):3

开课单位：法学院

Offering College/School:College of Law

课程描述： 本课程旨在介绍行政管理学的基本理论与基本方法，注重其基础性、系统性、前沿性，强化理论与实际的紧密结合，力求体现中国特色，为落实科学发展观和共建和谐社会服务。在结构上有进一步的调整、改善，理论含量有新的提高。同时课程内容吸纳了本学科研究的新成果，并结合党的十七大精神，更加关注我国当前行政管理体制改革的热点、难点问题。

Course description: The purpose of this course is to introduce the basic theory and basic method of administrative management, pay attention to its fundamental, systemic, frontier, strengthen the close combination of theory with practice, makes every effort to embody Chinese characteristics, service to carry out the scientific development view and build a harmonious society. On structure adjustment, improve further, have new theory content increase. Course content at the same time to absorb the new achievements in the study of this discipline, and combined with the spirit of the 17th national congress, pay more attention to the current reform of the administrative system of hot and difficult problem.

编 码: PA05002**Code:**PA05002**课程名称:** 公共经济学**Course Title:**Public Sector Economics**课程类别:** 学类核心**Course category:**Major Survey Course**学 分:** 3**Credit(s):**3**开课单位:** 法学院**Offering College/School:**College of Law

课程描述: 公共经济学(或公共部门经济学)是从经济效率和公平的视角来研究政府的经济政策的经济学分支学科,本课程着重介绍公共经济学的基本概念、基本理论和分析方法。公共经济学提供了一个分析框架用以思考政府应该还是不应该参与市场经济或政府的经济职能范围是什么。因此,本课程将会涉及到市场失灵、外部性、政府政策的制定和实施,公共财政的理论和应用,税收和政府支出的效应,政府失灵,公共产品理论和公共选择理论。公共经济学主要采取的是规范经济分析方法。公共经济学建立在福利经济学的基础之上,终极作用是作为一个提高社会福利的工具。学习本课程要求学生具有经济学和公共管理学的基础知识。

Course description: Public economics (economics of the public sector) is the study of government policy through the lens of economic efficiency and equity. At its most basic level, public economics provides a framework for thinking about whether or not the government should participate in economics markets and to what extent its role should be. Inherently, this study involves the analysis of government taxation and expenditures. This subject encompasses a host of topics including market failures, externalities, and the creation and implementation of government policy,the theory and application of public finance,distributional effects of taxation and government expenditures,government failure, theory of public goods and public choice. Public economics builds on the theory of welfare economics and is ultimately used as a tool to improve social welfare. Basic Knowledge of microeconomics, macroeconomics and public administration is required.

编 码: PA05006**Code:**PA05006**课程名称:** 公共部门人力资源
源管理**Course Title:**Public Human Resource Management**Course category:**Required Core Course**课程类别:** 专业核心**Credit(s):**3**学 分:** 3**Offering College/School:**College of Law**开课单位:** 法学院

课程描述: 本课程试图从管理学、社会学和心理学等学科角度出发, 帮助学生了解人力资源管理对于组织的重要性以及它对获得和维持竞争优势的种种潜在的贡献。通过本课程的学习, 使学生认识人力资源在经济、社会发展中的地位作用, 理解人力资源管理职能在企业管理全景下的定位、职能与交互关系; 掌握人力资源管理的基本理论、基本知识和基本方法; 培养从事人力资源管理实际工作的操作能力; 为其他专业课的学习和今后的工作奠定基础, 能够在实际工作中更加主动地理解自己的优势, 规划适合自身条件的职业前景。

Course description: The Human Resources Management (HRM) function includes a variety of activities, and key among them is deciding what staffing needs you have and whether to use independent contractors or hire employees to fill these needs, recruiting and training the best employees, ensuring they are high performers, dealing with performance issues, and ensuring your personnel and management practices conform to various regulations. Activities also include managing your approach to employee benefits and compensation, employee records and personnel policies. Usually small businesses (for-profit or nonprofit) have to carry out these activities themselves because they can't yet afford part- or full-time help. However, they should always ensure that employees have -- and are aware of -- personnel policies which conform to current regulations. These policies are often in the form of employee manuals, which all employees have.

编 码: PA05010	Code:PA05010
课程名称: 地方政府学	Course Title:Administrative Philosophy
课程类别: 专业核心	Course category:Required Core Course
学 分: 2	Credit(s):2
开课单位: 法学院	Offering College/School:College of Law

课程描述: 本课程是行政管理专业必修课。通过本课程的教学, 能够使学生加深理解和运用政治学、行政学等基础课的理论 and 知识, 掌握地方政府学的基本理论、基本范畴和基本知识, 了解中国和部分西方国家地方政府的组织和地方行政管理的概况、规律和方法。由于本课程与现实问题和现象的紧密联系, 课程要求学生开展课外阅读、进行案例讨论与分析、进行问题对策思考、撰写读书报告、研究报告, 通过对所学知识、理论的熟悉、运用, 从而提高学生发现、思考和解决问题的能力。因此, 本课程不仅为后续课程的学习打下良好的基础, 而且对学生毕业后从事实际的管理工作, 以及进一步从事相关的科学研究将会产生较为良好的影响。

Course description: This course is compulsory administration. Through the teaching of this course, students can deepen understanding and using basic theories and knowledge of politics and administration, can grasp the basic theory of the local governments, basic concepts and knowledge, and can understand the general situation, rule and method of local government organizations and local administration between China and some Western countries . Due to this course with real problems and phenomena closely curriculum requires that students develop the outside reading, case discussion and analysis, for problem solutions, writing a book report, based on familiarity with the knowledge, theory, application, so as to improve their detection, ability to think and solve problems. Therefore, this course will not only lay a good foundation for the subsequent course of study, and the management of students engaged in practical work and further engage in related sciences will be had a good affect.

编 码: PA05010X**Code:**PA05010X**课程名称:** 行政哲学**Course Title:**Administrative philosophy**课程类别:** 专业核心**Course category:**Required Core Course**学 分:** 2**Credit(s):**2**开课单位:** 法学院**Offering College/School:**College of Law

课程描述: 行政哲学是有关公共行政的哲学思考,它旨在以哲学的视角来审视公共行政,总结概括公共行政的基本内涵,反思有关公共行政的实践经验和认识,揭示出有关公共行政的本质特征和一般规律,从而概括和形成公共行政的规范理论,指导并推动公共行政向更加科学、更加理性的方向发展。推进行政哲学研究,特别是构建行政哲学的学科体系,能够为公共行政提供系统完整的认识论基础和方法论前提,为公共行政学提供全面深入的学理支撑,为公共行政理论与实践、行政文明发展和行政体制改革提供根本的指导原则,也能够为公共行政的社会监督提供系统的理论依据。

Course description: Administrative philosophy is the philosophy of thinking about public administration, which aims to examine the perspective of the philosophy of public administration, public administration speech summed up the basic meaning, reflect on public administration experience and knowledge, revealing the nature and the characteristics of the public administration in general law, thereby forming a gauge theory in general and public administration, public administration, to guide and promote more scientific, more rational direction. Promote research administrative philosophy, especially the establishment of administrative philosophy discipline system, able to provide a complete system of epistemological foundations and methodology premise of public administration, to provide comprehensive in-depth theoretical support for the public administration, public administration theory and practice, developing administrative civilization and administrative reform to provide basic guidelines can provide a theoretical basis for social supervision system of public administration.

编 码: PA05011**Code:**PA05011**课程名称:** 行政组织学**Course Title:**Administrative Organization**课程类别:** 专业核心**Course category:**Required Core Course**学 分:** 3**Credit(s):**3**开课单位:** 法学院**Offering College/School:**College of Law

课程描述: “行政组织学”采用宏观的观点, 主要把行政组织本身(即“政府机构”, 一种特殊的组织形态)作为基本的分析单位, 并且力求解释行政组织如何以及为何如其所是那样的表现。行政组织学是行政管理学科体系的核心部分, 研究内容主要包括行政组织的结构与设计、行政组织系统、行政组织的运行与发展。

Course description: "Public Organization Theory", from the macro perspective, mainly recognizes public organization itself (i.e., "government agency", a special type of organization) as the basic unit of analysis, and strives to explain public organization how and why it is like that. Public organization theory is the core of subject system of public administration. The topics of this course mainly include organization design and structure, the system of government agencies and the running and developing of public organization.

编 码: PA05012**Code:**PA05012**课程名称:** 行政领导学原理**Course Title:**Principles of Administrative Leadership**课程类别:** 专业核心**Course category:**Required Core Course**学 分:** 2**Credit(s):**2**开课单位:** 法学院**Offering College/School:**College of Law

课程描述: 领导是随着人类社会的产生而产生的，并与人类社会的发展和演进相伴始终。领导学是人类生产活动和领导实践长期发展的必然产物，它吸取了古今中外领导思想中的合理成分，借鉴了现代科学发展的理论成果，并在日益丰富的领导实践中不断地发展和完善。作为一门交叉性、应用性都很强的学科，领导学对领导活动中的有关问题进行了多角度、多方面的研究和探讨，对领导实践的发展具有重要的指导意义。

Course description: Leadership is with the produce of human society, and accompanied by the development of human society and evolution has always been. Leadership is the human production activities and leadership practice long-term development inevitable product, it absorbs the leadership thought of ancient and modern, Chinese and foreign reasonable composition, draw lessons from the theory achievement of the development of the modern science, and in the increasingly rich leadership practice constantly development and improvement. As a cross, applied are strong discipline and leadership studies on leadership activities in multiple perspectives on this issue, the research and discussion of many sided, the leadership has important guiding significance to the development of practice.

编 码: PA05013**Code:**PA05013**课程名称:** 行政法**Course Title:**Administrative Law**课程类别:** 专业核心**Course category:**Required Core Course**学 分:** 2**Credit(s):**2**开课单位:** 法学院**Offering College/School:**College of Law

课程描述: 《行政法学》是一门研究我国行政法的课程。该课程主要涉及行政法学总论部分，它是由行政法导论、主体论、行为论、程序论、救济论等五大部分构成的一个完整的知识框架。通过该课程的学习，首先，要求学生系统掌握行政法导论、主体论、行为论、程序论、救济论等整个知识框架。其次，更重要的是，要培养学生依法治国的理念与依法行政的意识，提高学生理论联系实际的能力与提出问题、分析问题、解决问题的能力，学会用行政法基本理论与行政法律分析实践中出现的行政案件。培养为我国社会主义市场经济服务的应用型、操作型与创新型行政管理人才与法律人才，为建立服务型政府输送优秀人才，进一步推进我国依法行政、依法治国的进程。

Course description: Administrative law course is a study of administrative law. "Administrative Law" course is the study of Chinese Administrative law .The course is mainly related to the general part of the administrative law. It is consists of a complete knowledge framework by five parts, namely the Administrative Law Introduction, administrative law subject, behavioral theory, administrative procedure law, and administrative remedy or supervision of administration.

After learning the above content, students are required to firmly establish the concept of administrative law, master the basic theory and knowledge frame of the introduction to administrative law, administrative law subject theory, behavior theory, procedure theory, remedy theory and supervision theory. After studying this course, students would understand the concrete practice and existing problems in the development of administrative law, know the general method of writing and analysis for administrative law cases, and learn to analyze a variety of administrative cases in practice with basic theories and regulations of administrative law. This course could also promote students' awareness and theoretical knowledge of administrative law, and strengthen their ability of integrating theory with practice and the competence of raising, analyzing and solving problems. It is designed to training the high-level, investigative, and versatile public administrator to serve to Chinese socialist market economy, and further boost the process of China administration according to law and the rule of the law in our country.

编 码：PA05014

Code:PA05014

课程名称：非营利组织管理

Course Title:Nonprofit Organizations Management

课程类别：专业核心

Course category:Required Core Course

学 分：2

Credit(s):2

开课单位：法学院

Offering College/School:College of Law

课程描述： 作为社会的第三大部门，非营利组织在社会、经济生活中必将发挥日益重要的作用。科学、高效的管理策略为非营利组织的健康发展提供了重要支持。本课程从我国非营利组织的基本情况出发，结合西方非营利组织发展的有益经验，对非营利组织管理的基本理论知识做了介绍。

Course description: As the third major sectors of society, nonprofit organizations will play an increasingly important role in social, economic life. The scientific and effective management strategies provide an important support for the healthy development of nonprofit organizations. This course from the basic situation of nonprofit organization of our country, combining the beneficial development experience of western nonprofit organizations, the basic theory of nonprofit organizations management is introduced.

编 码: PA06001**Code:**PA06001**课程名称:** 电子政务**Course Title:**Electronic Government Affairs**课程类别:** 专业核心**Course category:**Required Core Course**学 分:** 2**Credit(s):**2**开课单位:** 法学院**Offering College/School:**College of Law

课程描述: 电子政务是信息时代政府管理的重要手段,对政府管理理念、流程、方法和文化产生了深刻影响。作为行政管理专业的核心课程,《电子政务》课程旨在让学生准确把握电子政务的科学内涵,了解国内外电子政务发展历程和现状,熟悉我国电子政务发展战略和电子民主发展,掌握电子政务项目管理、政府门户网站建设、电子政务绩效管理、电子政务安全体系建设有关方法和原则。

Course description: Electronic government is an important tool of modern governance. E-government is a government that applies ICT to transform its internal and external relationships. Through the application of ICT to its operations, a government does not alter its functions or its obligation to remain useful, legitimate, transparent and accountable. If anything, this application raises society's expectations about the performance of government, in all respects, to a much higher level. The course is intended to provide a foundation for students interested in public administration and political science. Our goal is for you to appreciate a range of models and theories that help explain how electronic government works. Also, the course will help you to better understand e-government project management, e-government strategy, e-government performance management and e-democracy.

编 码: PS04003

Code:PS04003

课程名称: 行政学说史(双语)

Course Title:History of Public Administrative Theories

课程类别: 专业核心

Course category:Required Core Course

学 分: 3

Credit(s):3

开课单位: 法学院

Offering College/School:College of Law

课程描述: 该课程旨在介绍行政学发展的基本历程,主要学派及其代表性人物的时代背景、代表性著作、主要思想以及其特点。同时,该课程还将对中国行政学发展历史和主要思想进行讨论。

Course description: The course introduces the development of public administrative theories in western Society, especially famous scholars and their representatives in the field of public administration. Also, this course will explore and discuss the Chinese history of public administrative theories.



编 码: PS04008

Code:PS04008

课程名称: 外交学

Course Title:Diplomacy

课程类别: 专业核心

Course category:Required Core Course

学 分: 3

Credit(s):3

开课单位: 法学院

Offering College/School:College of Law

课程描述: 《外交学》是一门以外交行为及其一般规律为研究对象的专门学科,是政治学、国际政治学、外交学和国际关系史学科的一门重要的必修专业课程。

通过对《外交学》的学习,使学生对外交的功能、外交的战略和策略、外交的制度、外交的途径、外交的礼仪及外交人员的素质等方面有一个整体和全面的把握,为今后进一步深入研究相关问题打下比较扎实的基础。

Course description: This course is intended to provide a foundation for students interested in diplomacy. The course will cover the evolution of the diplomacy, the basic function of diplomacy, diplomatic institution and diplomatic Etiquette.



编 码: PS04009	Code:PS04009
课程名称: 比较政治学	Course Title:Comparative Political Theory
课程类别: 学类核心	Course category:Major Survey Course
学 分: 3	Credit(s):3
开课单位: 法学院	Offering College/School:College of Law

课程描述: 本课程是政治学与行政学专业的学类核心课程,以政治学原理、当代西方政治思想为前导课程,为政治学比较方法方面课程学习提供理论指导。比较政治学是政治学学科领域的独特的分支学科,这种独特性来自于他的比较方法的强调和依赖。比较政治学主要是以独特的方法论而有别于其他学科,而在研究领域上,比较政治学涵盖了其他政治学学科分支的内容,表现了特定的兼容性。本课程主要包括比较政治研究方法、关于国家和体系理论、比较政治文化理论、比较现代化理论、政治结构理论和比较政治经济学理论等内容,学生需了解“二战”后西方政治学理论和研究方法的新进展,理解各种新理论和比较研究方法的差异,掌握比较方法进行政治研究,并能灵活运用比较研究方法等。通过学习本课程,学生学会比较政治研究的基本方法与技术,获得比较政治学的基本理论知识,锻炼和提升观察、思考、分析和解决问题的能力。

Course description: This course is a political science and administrative science professional science core curriculum, to principles of political science, contemporary western political thought for leading courses, for political science comparison methods courses learning to provide theoretical guidance. Comparative politics is political science disciplines unique branch. This uniqueness from comparative method in his emphasis and dependence. Comparative politics is mainly the unique methodology and don't in other disciplines, and in the research field, Comparative Political Science covers the other political science branch of the content, the performance of the specific compatibility. This course mainly includes the comparison of research methods in politics, about countries and systems theory, comparative political culture theory, comparative modernization theory, theory of political structure in comparison with the theory of political economics and so on, students need to understand the new progress of "World War II" western political science theory and research methods, to understand the differences in all kinds of new theories and methods of comparative studies, master comparison method on political and flexibility in the use of comparative research methods. By learning this course, students learn compared politics basic methods and technology, to obtain the basic theory of comparative politics, exercise and enhance observation, thinking, analysis and problem solving ability.

编 码: PS04010**Code:** PS04010**课程名称:** 政治学名著选读**Course Title:** Selected Readings on Political Science Classics**课程类别:** 学类核心**Course category:** Major Survey Course**学 分:** 2**Credit(s):** 2**开课单位:** 法学院**Offering College/School:** College of Law

课程描述: 本课程是政治学与行政学专业的必修课程。本课程的教学目标, 在于指导学生阅读政治学经典著作, 把握原著内容的精神实质, 并联系现实问题进行理解和分析。通过本课程教学, 重点讲授、讨论部分经典名著, 培养和提高学生阅读政治学著作的能力, 从而巩固政治学专业知识, 为政治学学习和研究打下基础。课程的主要内容选取 11 部政治学名著进行研读。

Course description: This course is a compulsory subject for Political Science and Administration major. The teaching objectives of this course is to guide students to read masterworks of political science, to grasp the spiritual essence of the progenitor content and understand and analyse the practical problems. Through teaching this course , focusing on teaching, discussing some masterworks, cultivating and improving the ability to read political science works , so as to achieve the consolidate professional knowledge of political science , lay a basic for learning and research in political science. The main contents of this course is selecting 11 political science masterpieces to read up.

编 码: PS04011**Code:**PS04011**课程名称:** 社会学概论**Course Title:** Genenral Introduction to Sociology**课程类别:** 学类核心**Course category:** Major Survey Course**学 分:** 2**Credit(s):**2**开课单位:** 法学院**Offering College/School:** College of Law

课程描述: 社会学是从社会整体出发,通过对社会关系、社会行动的分析来研究社会结构及其功能、社会过程及其原因与规律性的一门社会科学。学科最初得名于孔德,经过 K·马克思、H·斯宾塞、E·迪尔凯姆、M·韦伯等学者的不断发展,逐渐形成有独立研究对象、理论、研究方法和范式的一门社会科学。社会学研究对象包括与社会相关的历史、政治、经济、社会结构、人口变动、民族、城市、乡村、社区、婚姻、家庭与性、信仰与宗教、现代化等领域,其方法论思想是多元的,比如以 E·迪尔凯姆为代表的社会唯实论,认为人存在于社会之中,其行为和思想都并非纯粹服从于个体理性的,而是受到社会的塑造、限制乃至决定,另有以 M·韦伯为代表的社会唯名论。

Course description: Sociology is a social science which studies departure from the community as a whole, through social action and social relations to study the social structure and functions, social processes and causes and social regularity .Subjects originally named from the Comte. Marx, and developed through K •, H • Spencer, E • Durkheim, M • Weber and other scholars, and gradually formed a social science which has independent object of study, theories, research methods and paradigms. Sociology study including history, politics, economy, social structure, population change, ethnic, urban, rural, community, marriage, family and sex, faith and religion, modern and other fields. The methodology is diverse , such as the E • Durkheim as the representative of social realism, which considers that people exist in society, their actions and ideas are not merely subject to individual rationality, but shaped ,limited and even decided by society. The other methodology is the M • Weber's social nominalism.

编 码: PS05001	Code:PS05001
课程名称: 发展政治学	Course Title:Developmental Politics
课程类别: 专业核心	Course category:Required Core Course
学 分: 3	Credit(s):3
开课单位: 法学院	Offering College/School:College of Law

课程描述: 本课程是政治学与行政学专业的专业核心课程,以政治学原理、比较政治学为前导课程,为发展中国家政治发展方面课程学习提供理论指导。本课程作为当代政治学的一门新兴学科,以政治发展(political development)问题(尤其是欠发达国家的政治发展问题)为研究主题,主要包括发展中国家如何实现民主转型、如何实现社会稳定、如何克服政治腐败、如何化解政治危机和怎样完成政治文化改造等内容,学生需了解“二战”后对亚非拉发展中国家政治研究的新进展,理解亚非拉国家政治发展模式的差异,掌握亚非拉国家政治发展基本动态,并能灵活运用比较研究方法研究亚非拉国家政治发展问题等。通过学习本课程,学生学会比较研究亚非拉国家政治发展的基本方法与技术,获得政治发展方面的基本理论知识,锻炼和提升观察、思考、分析和解决亚非拉国家政治发展问题的能力。

Course description: This course is a political science and administrative science professional core curriculum, to principles of politics, comparative politics leading courses, the course of the political development of developing countries learn to provide theoretical guidance. This course as a new subject of contemporary political science, political development (political development) problem (especially the political development in less developed countries) as the research subject, including developing countries how to realize the transition to democracy, how to realize the social stability, how to overcome the political corruption, how to resolve the political crisis and how to complete the transformation of political culture so, students need to understand the latest development of "World War II" after the political research of the developing countries in Africa and Asia, Africa and Latin America to understand the difference mode of national political development, grasp the African national political development basic dynamic and flexible use, comparative study of national political development in asia. By learning this course, students learn to comparative study Asian, African and Latin American countries political development technology and the basic method, basic theory of political development, exercise and enhance observation, thinking, analysis and solve in Asia, Africa and Latin America countries in the development of political problems.

编 码: PS05002**Code:** PS05002**课程名称:** 西方政治思想史**Course Title:** History of Western Political Thought**课程类别:** 学类核心**Course category:** Major Survey Course**学 分:** 3**Credit(s):** 3**开课单位:** 法学院**Offering College/School:** College of Law

课程描述: 这是政治学专业最为重要的主干课程之一，其主要目的是通过研究当代政治概念、范畴如权力、权利、国家、自由、正义、平等、代表性、合法性等的起源和发展，来锻炼并提高政治思维能力。在探讨这些概念时，本课程会向学生们介绍主要的政治思想家，包括柏拉图、亚里士多德、马基雅维里、霍布斯、洛克与卢梭等。审视这些从古希腊时期到十九世纪西方政治理论的主要思想家们，将特别注意他们所处的历史背景，通过这些政治思想家的著作还将探究出不同概念之间的关系。

Course description: As one of the key courses for the major of political science, this course aims to enhance the ability of political thinking through examining the origins and development of contemporary political concepts such as power, right, state, freedom, justice, equality, representation, legitimacy and so forth. In reviewing these concepts, this course introduces students to major political thinkers, including Plato, Aristotle, Niccolo Machiavelli, Thomas Hobbes, John Locke and Jean-Jacques Rousseau, etc. This course surveys these major thinkers in Western Political Theory from the ancient Greek to the 19th century. Particular attention will be paid to the historical context of thinkers and concepts. The relationships and links between different conceptualisations will also be explored through the works of these monumental thinkers.

编 码: PS05004**Code:**PS05004**课程名称:** 廉政学**Course Title:**Clean Governance**课程类别:** 专业核心**Course category:**Required Core Course**学 分:** 3**Credit(s):**3**开课单位:** 法学院**Offering College/School:**College of Law

课程描述: 本课程是政治学与行政学专业的必修课程。本课程的教学目标,是通过对本课程的学习,使学生掌握廉政建设的基本理论,了解中外廉政建设概况及其经验,掌握惩治和预防腐败的基本技术与方法,把握我国廉政建设的政策及其走向,为今后从事相关实际工作打好坚实理论基础。课程的主要内容包括:腐败与反腐败的基本理论、中外廉政建设实践、国家廉政体系、惩治和预防腐败的基本技术与方法等等。

Course description: This course is a compulsory subject for the Political Science and Administration major. The teaching goal of this course is that, through studying this course, students can know the basic theory of clean and honest government, understand the overview and experience of clean and honest government in and abroad, master basic techniques and methods of punishing and preventing corruption , grasp the policies and trends of clean and honest government in China .lay a solid theoretical foundation for the related to practical work in the future. The main contents of course include: The basic theory of Corruption and Anti-corruption, clean and honest government practices in and abroad, national integrity system, the basic techniques and methods of punishing and preventing corruption , etc.

编 码: PS05005**Code:** PS05005**课程名称:** 中国政治思想史**Course Title:** Chinese History of Political Thoughts**课程类别:** 学类核心**Course category:** Major Survey Course**学 分:** 3**Credit(s):** 3**开课单位:** 法学院**Offering College/School:** College of Law

课程描述: 本课程是政治学与行政学专业的核心课程，以政治学原理为前导课程，为政治学与行政学方面课程学习提供坚实中国传统政治思想理论基础。本课程包括先秦时期形成期政治思想、秦汉隋唐时期发展期政治思想、宋元明时期完善期政治思想、明末清初反思期政治思想、近代思想转型期政治思想和近代变革期政治思想六大时期的政治思想。学生需要了解中国历史上各个时期具有重大影响的思想家的思想学说，理解中国传统政治思想史的发展过程和脉络，掌握中国政治思想史的基本内容及其基本特征，并能灵活运用中国传统政治思想的经典来解读当前中国的政治现象，找出问题所在，且能理出应对解决思路。通过本课程的学习，学生学会用中国政治思想的思路来认识问题，获取分析中国实际问题的能力，锻炼和提升解决身边实际问题的能力。

Course description: This is a professional basic courses offered for students of political science and public administration. This course will help students understand the various periods in the history of China has a significant impact thinkers doctrine and related follow-up professional courses for students to learn, such as History of Chinese Political Systems、 The History of Chinese Anti-corruption Thought.The study of this course develops the students' ability to analyze and solve practical problems,to clarify the inheritance of different political ideology in different historical periods, and understand the traditional Chinese political thought of modern value. The main contents of this course are the evolution of Chinese political thought, including study、 historical stages 、conditions and characteristics of subjects of Chinese political thought, the development of Chinese political thought since the early Qin Dynasty.

编 码: PS05006

Code:PS05006

课程名称: 中国政治制度史

Course Title:Chinese History of Political System

课程类别: 学类核心

Course category:Major Survey Course

学 分: 3

Credit(s):3

开课单位: 法学院

Offering College/School:College of Law

课程描述: 本课程是政治学与行政学专业的一门专业基础课程。课程的任务是使学生对中国政治制度从整体上有一个较清楚的了解,对当前的中国政治制度及政治体制改革有较清醒的认识。

Course description: This course is a major foundation course in politics and administration. The aim of this course is to let the students have an intimate acquaintance about current China's political system and the reform of political system through the following main tasks: Understanding the evolution of the political, constitution and regime systems throughout the change of dynasties; An overall grasp of the Chinese political system; An acquaintance of the political and reform system on the basis of a clarified understanding about the inheritance and development of political system. Main contents of the course include: The basic clue and rules of the political system development; The characteristics of the political system during the kingship era; The characteristics of the political system under the control of imperial power; The political system during the civil rights era.

编 码: PS05009

Code:PS05009

课程名称: 现当代国际关系

Course Title:Modern and Present International Relations

课程类别: 专业核心

Course category:Required Core Course

学 分: 3

Credit(s):3

开课单位: 法学院

Offering College/School:College of Law

课程描述: 系统地讲授现当代国际关系发展变化的基本过程和演变规律; 分析国际关系的理论和基本知识; 大国外交政策及其对外关系; 剖析国际格局的变化。

Course description: The Course will teach systematic changes and evolution in the development of the basic process of contemporary international relations, analysis theory and basic knowledge of international relations , big power diplomacy and foreign relations, and the changes in the international situation.



编 码: PS05010**Code:** PS05010**课程名称:** 当代西方政治哲学**Course Title:** Contemporary Western Political Philosophy**课程类别:** 专业核心**Course category:** Required Core Course**学 分:** 2**Credit(s):** 2**开课单位:** 法学院**Offering College/School:** College of Law

课程描述: 本课程以政治学原理、西方政治思想史为先修课程。它在政治学专业中属于思想史和理论思维能力的专业知识模块。课程学习西方现当代主要的政治哲学思想和流派。在每一种政治哲学流派下面选取代表性思想家的著作来进行阅读和讨论,通过学习,学生可以充分理解西方现当代各种政治哲学理论的主要观点和政治哲学问题演变、发展的逻辑。课程有助于提高学生对社会结构、政治制度、政治文化和政治行为的理论观察与分析能力。

Course description: The main objective of this course is to provide an introduction to the works of some of the most influential 20th-21st Century political philosophers. The course is organized 8 chapters on utilitarianism, liberal egalitarianism, libertarianism, socialism, communitarianism, and feminism. The many thinkers discussed include John Rawls, G. A. Cohen, Ronald Dworkin, Robert Nozick, John Roemer, Michael Sandel, Michael Walzer. We will analyze the concepts articulated by these philosophers, paying attention to their divergent perspectives on some of the most important questions of contemporary political philosophy.

编 码: PS05011**Code:**PS05011**课程名称:** 政府公文写作**Course Title:**Public Document Writing and Processing**课程类别:** 专业核心**Course category:**Required Core Course**学 分:** 2**Credit(s):**2**开课单位:** 法学院**Offering College/School:**College of Law

课程描述: 政府公文是各级机关行使法定职权, 实施有效管理的重要工具, 具有很强的现实效用性。通过《政府公文写作》课程的教学, 使学生了解公文在组织中的重要作用, 并比较全面系统地掌握行政机关公文与处理的基本理论, 基本知识与基本技能, 认识机关公文形成和处理的基本规律。按照 2012 年《党政机关公文处理工作条例》等相应规定, 掌握公文写作的结构、规则与语言运用以及公文写作的具体规则与要求, 课程将通过案例分析和教、学同步练习培养和提高学生撰拟公文和处理公文的能力

Course description: In view of characteristics of official documents, introduces the basic requirements and methods of official documents writing, including the role of major points in official documents writing and the way of express it. The course will show students writing methods of different kinds of official documents that are often used. This course mainly involves the following parts: the basic requirements and steps of official documents writing, the methods of how to express the major viewpoints based on documents' titles, preface, closing part, usage of different kinds of official language, the structure and elements of official documents, as well as how to write official notifications, mail, conformity, reports, official reply and summary.

编 码: PS05012

Code:PS05012

课程名称: 专业英语

Course Title:Professional English

课程类别: 专业核心

Course category:Required Core Course

学 分: 2

Credit(s):2

开课单位: 法学院

Offering College/School:College of Law

课程描述: 本课程主要通过介绍西方政治学理论和文献, 让学生掌握政治学领域的一些基本的英语理论和知识, 为其以后的英文论文写作和专业英语的运用奠定基础。

Course description: This course is designed to introduce western political science theories and literatures, in order to let students understand and grasp the basic English theories and knowledge of political science. All these will pave basement for their future professional English reading and writing.



编 码: PS06010

Code:PS06010

课程名称: 组织行为学

Course Title:Organizational Behavior

课程类别: 学类核心

Course category:Major Survey Course

学 分: 2

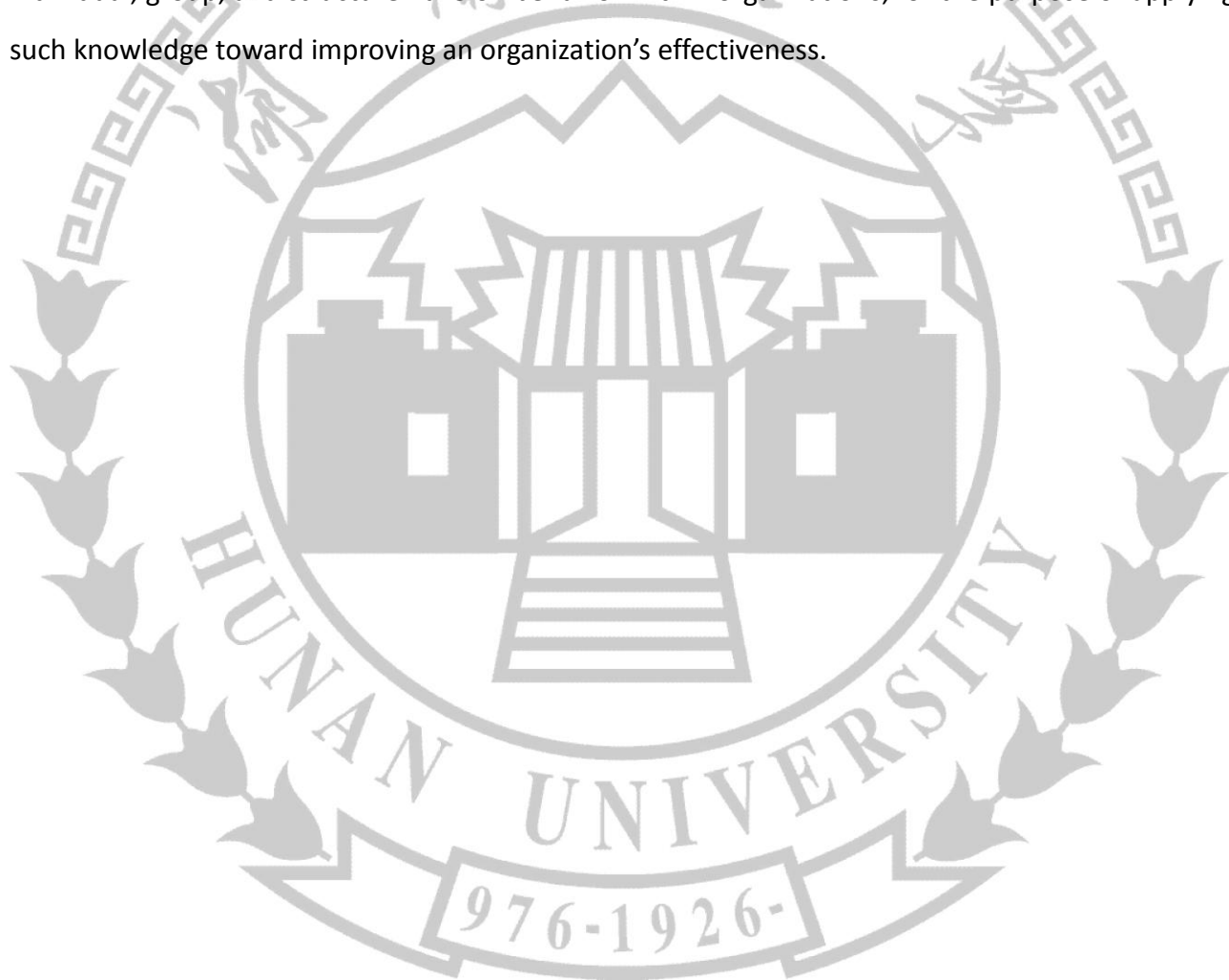
Credit(s):2

开课单位: 法学院

Offering College/School:College of Law

课程描述: 组织行为学是管理类各专业的一门专业基础课程。组织行为学是研究组织中人的心理活动与行为规律,用科学和方法改进管理工作,以调动人的积极性的一门科学。

Course description: Organizational behavior is a field of study that investigates the impact that individual, group, and structure have on behavior within organizations, for the purpose of applying such knowledge toward improving an organization's effectiveness.



编 码: TF03015**Code:**TF03015**课程名称:** 社会学概论**Course Title:**Introduction to Sociology**课程类别:** 学门核心**Course category:**Introductory Major Course**学 分:** 2**Credit(s):**2**开课单位:** 法学院**Offering College/School:**College of Law

课程描述: 社会学是从社会整体出发,通过对社会关系、社会行动的分析来研究社会结构及其功能、社会过程及其原因与规律性的一门社会科学。学科最初得名于孔德,经过 K•马克思、H•斯宾塞、E•迪尔凯姆、M•韦伯等学者的不断发展,逐渐形成有独立研究对象、理论、研究方法和范式的一门社会科学。社会学研究对象包括与社会相关的历史、政治、经济、社会结构、人口变动、民族、城市、乡村、社区、婚姻、家庭与性、信仰与宗教、现代化等领域,其方法论思想是多元的,比如以 E•迪尔凯姆为代表的社会唯实论,认为人存在于社会之中,其行为和思想都并非纯粹服从于个体理性的,而是受到社会的塑造、限制乃至决定,另有以 M•韦伯为代表的社会唯名论。

Course description: Sociology is a social science which studies departure from the community as a whole, through social action and social relations to study the social structure and functions, social processes and causes and social regularity .Subjects originally named from the Comte. Marx,and developed through K •, H • Spencer, E • Durkheim, M • Weber and other scholars,and gradually formed a social science which has independent object of study, theories, research methods and paradigms.Sociology study including history, politics, economy, social structure, population change, ethnic, urban, rural, community, marriage, family and sex, faith and religion, modern and other fields. The methodology is diverse , such as the E • Durkheim as the representative of social realism, which considers that people exist in society, their actions and ideas are not merely subject to individual rationality, but shaped ,limited and even decided by society. The other methodology is the M • Weber's social nominalism.

编 码: BA04038**Code:**BA04038**课程名称:** 中国税制**Course Title:**Taxation System of China**课程类别:** 学类核心**Course category:**Major Survey Course**学 分:** 3**Credit(s):**3**开课单位:** 经济与贸易学院**Offering College/School:**College of Economics and Trade

课程描述: 本课程是会计学专业的学类课程,以经济学、财政学为前导课程,为后续税务会计、高级财务会计、税收筹划等专业课程的学习提供基础性知识。

本课程研究的主要对象是中国现行的税收制度,涉及我国现行的所有税种及其主要规定,包括纳税人、课税对象、税目、税率、计税依据、计税方法、减免税规定、纳税期限、纳税地点等。通过学习本课程,学生学会正确处理不同经济业务中的税收问题,正确计算各税种的应纳税额,锻炼和提升自己分析涉税问题和解决涉税问题的能力。

Course description: This course is a professional course of accounting, which takes Economics and Finance as leading courses, and provides fundamental knowledge for studying subsequently Tax accounting, Advanced financial accounting, Tax planning, etc.

The main object of this course is the current tax system in China, which is related to our current tax system and its principal provisions, including the taxpayer, object of taxation, tax item and tax rate, taxation basis, taxation method, reduction or exemption regulations of tax, assessable period for tax payment, tax payment place, etc. By learning this course, students learn to correctly handle the taxation matters in different economic business, and also to correctly calculate the tax amount payable, thus exercising and promoting the ability to analyse and solve tax-related issues.

编 码: CA05003**Code:**CA05003**课程名称:** 税收相关法律**Course Title:** Tax Laws**课程类别:** 专业核心**Course category:** Required Core Course**学 分:** 3**Credit(s):** 3**开课单位:** 经济与贸易学院**Offering College/School:** College of Economics and Trade

课程描述: 税收相关法律是财政学、税收学专业必修课程，是注册税务师执业资格考试课程之一，具有很强的法律性、综合性和可操作性。本课程主要涉及行政法律制度、民商法律制度、刑事法律制度和诉讼法律制度四大法域，涉及知识点跨度较大，且具有法条化、概念抽象化、琐细繁多等特点。考虑到课时十分有限，对于诉讼法律制度我们暂不作教学要求，仅做自学参考之用。通过本课程的学习，使学生了解行政法、民商法、刑法的法律基础理论和相关概念、专业术语，掌握税收相关法律法规，提高学生法制意识和运用税收相关法律解决现实法律问题的能力，便于更好的为理论研究和实际工作服务。

Course description: RELEVANT LAWS TO TAX is the compulsive course for the major in public finance and taxation. Also, it was one of the qualification examination courses of CTA. It has a strong legality, integrity and operability. This course is mainly involved in four legal fields, including the administrative law system, the civil and commercial law system, the criminal legal system and the litigation legal system. It deals with a large range of legal regulations and abstract concepts, which are difficult to understand and remember. Considering the limited class period, the litigation legal system will be passed, only for self-study and reference. Students need to understand the basic legal theories and related concepts and master the laws and regulations. Also they can really apply the knowledge to practice and have the ability in solving practical legal problems, so that they can better facilitate for their theoretical study and practical work.

编 码: CA05005

Code:CA05005

课程名称: 税收管理学

Course Title:Taxation Management

课程类别: 专业核心

Course category:Required Core Course

学 分: 3

Credit(s):3

开课单位: 经济与贸易学院

Offering College/School:College of Economics and Trade

课程描述: 本课程是财政学及其他相关经济学专业核心课。前导课程为财政学和中国税制。通过本课程的教学,力求强化税收管理的实践教学功能,让学生在掌握税收管理的基本理论、税收征管的基本程序的同时,训练学生的专业技能和实务操作能力,以适应市场对应用型税务、财务人才的要求。

Course description: This is the Professional core courses for the specialty of Public Finance.The leading courses are Public Finance and China Taxation System. Master the fundamental theory and skill of practice in Taxation Management.Train the students to apply the practical knowledge of Taxation Management to analyze specific issues and to solve practical problems by case-teaching.



编 码: CA05006**Code:**CA05006**课程名称:** 税务会计学**Course Title:** Tax Accounting**课程类别:** 专业核心**Course category:** Required Core Course**学 分:** 3**Credit(s):** 3**开课单位:** 经济与贸易学院**Offering College/School:** College of Economics and Trade

课程描述: 本课程是财政学专业的专业核心课程,以会计学、税收学为前导课程,为税收筹划、税务代理、税务稽查等方面课程学习提供基础性知识。

本课程涉及会计学、税收学相关知识,专门研究税务信息的确认、计量和报告,主要包括概述、纳税管理实务和各税种的会计核算等内容,学生需了解税务会计的基本理论以及纳税管理方面的制度,理解和掌握各税种的会计核算。通过本门课程的学习,使学生掌握从事财税、会计等相关工作所必需的基本理论和基本知识,提高学生的税务专业技能和实际操作能力

Course description: This course is a professional core curriculum of finance speciality, which takes Accounting and Taxation as leading courses, and provides fundamental knowledge for Tax planning, Tax agency, Tax auditing courses etc.

This course involves the relevant knowledge on Accounting and Taxation, and specialises in the affirmation, measurement and reporting of tax information, including overview, practice of tax management and financial accounting of various taxes, so students need to understand the basic theory of tax accounting and tax management system, and also should understand and master financial accounting of various taxes. Through the study of this course, it can make students master necessary basic theory and basic knowledge to work in the finance and tax, accounting and related fields, and can improve the students' tax professional skills and practical abilities.

编 码: CA05007**Code:**CA05007**课程名称:** 税收筹划**Course Title:** Tax planning**课程类别:** 专业核心**Course category:** Required Core Course**学 分:** 3**Credit(s):** 3**开课单位:** 经济与贸易学院**Offering College/School:** College of Economics and Trade

课程描述: 本课程是财税专业的专业核心课程,以《中国税制》、《财务会计》和《税收相关法律》等课程为前导课程,为《税务稽查》和《税收管理学》等课程提供较扎实的业务基础和实践技能。本课程主要包括税收筹划的基础原理和基本技术、现行各个主要税种筹划原理、筹划空间和典型筹划技术及案例分析等内容。学生需了解企业各个生命周期的典型业务,理解各个典型业务的税务处理,掌握典型业务的筹划策略和技能,并能灵活运用各种税收筹划方法对企业及个人的各项经济业务活动进行税收筹划,获取涉税利益,并在实践上具备可行性。通过学习本课程,学生学会税收筹划的理论知识 and 基本方法,获得税收筹划相关的实践技能,锻炼和提升运用所学的税收筹划知识针对具体问题进行分析与解决实际问题的综合能力。

Course description: This course is a core curriculum of Finance and taxation. Chinese Tax System, Financial Accounting, Tax Related Law and so on are the leading of this course. What's more, this course provides a solid business foundation and practical skills for the course of Tax Inspection and Tax Management. This course mainly includes the basic principle and basic technology of tax planning, the tax planning theory of current main tax categories, planning space, typical planning technology and case analysis. Students need to understand the typical business of enterprises in different life cycle and the tax treatment of various typical business. In addition, students need to master planning strategies and skills of the typical business, use various methods of tax planning flexibly for corporate and individual economic business activities to obtain tax related interests and feasibly in practice. By learning this course, students can learn the theory and basic methods of tax planning and receive related practical skills of tax planning. More importantly, students can exercise and enhance the comprehensive ability of using tax planning knowledge to analyze and solve practical problems.

编 码: CA05008**Code:**CA05008**课程名称:** 国际税收学**Course Title:**International taxation**课程类别:** 专业核心**Course category:**Required Core Course**学 分:** 3**Credit(s):**3**开课单位:** 经济与贸易学院**Offering College/School:**College of Economics and Trade

课程描述: 本课程主要介绍国际税收有关基本概念及原理, 包括所得税的税收管辖权、国际重复征税及其解决办法、国际避税及反避税的概念与方法、国际税收协定、税收优惠与吸引外资以及商品课税的国际税收问题等。国际税收并不是国际社会凭借一种超国家的政治权力取得收入的工具, 不涉及国内税收以外的新的税种, 因此本课程不注重于国内税收课程讲授过的税收的基本概念条款等的解释, 而是着力介绍了其作为国家之间的税收关系在国与国的税收分配和税收协调过程中表现出的不同之处。

在上述课程内容的安排上, 力求达到基础性、前沿性、时代性, 即在努力构建支持学生终身学习的知识基础的同时, 引导学生达到本学科的前沿领域。通过教学过程逐渐培养学生分析问题、解决问题的能力, 能够运用所学知识分析国家之间的税收关系与税收协调, 了解国际重复征税及其解决办法、国际避税及反避税的方法等知识。

Course description: This course mainly introduces the international tax related to the basic concepts and principles, including income taxes, the tax revenue jurisdiction of international double taxation and its solution, concept and method of international tax avoidance and anti-avoidance, international tax treaty and tax incentives to attract foreign capital and commodity taxation of international tax problems. International tax is not the international community with a supranational political power tools, its income does not involve the internal revenue outside of new taxes, so this is not a course on the domestic tax courses of the basic concept of tax terms of explanation, but emphatically introduces it as the national tax relations between the countries and the distribution of tax and tax coordination in the process of showing the differences.

On the arrangement of the course content, and strive to achieve basic, frontier and times, is trying to build the knowledge foundation of lifelong learning at the same time, guiding students to the frontier of this discipline. Through the teaching process gradually cultivate students' ability to analyze and solve problems, to use knowledge in analysis of relationship between tax and tax coordination between countries, to understand the international double taxation and its solutions, knowledge of international tax avoidance and anti-avoidance, etc.

编 码: CA05009**Code:**CA05009**课程名称:** 国有资产管理**Course Title:**State-owned Capital Management**课程类别:** 专业核心**Course category:**Required Core Course**学 分:** 3**Credit(s):**3**开课单位:** 经济与贸易学院**Offering College/School:**College of Economics and Trade

课程描述: 国有资产管理是一门蕴涵丰富的课程, 是对我国改革开放以来国有经济、国有企业的运作与管理进行规律寻求的总结探索。本课程结合现行国有资产管理体制改革的重心, 以如何正确处理政府与国有企业的关系为主线对国有资本的营运与管理进行分析和讲解。通过教学过程逐渐培养学生分析问题、解决问题的能力, 能够运用所学知识分析我国国有资本营运现状及世界范围内国有资产经营管理的发展趋势与特点, 达到能够从宏观角度观察和分析国有资本营运状况, 提高对宏观经济和国有资本发展规律的认识能力和把握能力的目的。

Course description: State-owned Capital Operation is the course of summing up and analyzing the laws of state economy and stated-owned enterprises management in China since reform and open. The study of this course develops the students' ability of analyzing, summarizing and solving the relevant problems, and of being able to do the analysis using the learned economic knowledge, of the status in quo of the operation and management of state-owned capital in our country and the trend and features of it worldwide. The aim of this course is to enable the students to look into and analyze the status of the operation of the state-owned capital from a macro perspective, and to improve their ability to understand and master the rules of the development of the state-owned capital and the macro-economy as well.

编 码: CA05010**Code:**CA05010**课程名称:** 公共预算管理**Course Title:**State Budget Management**课程类别:** 专业核心**Course category:**Required Core Course**学 分:** 3**Credit(s):**3**开课单位:** 经济与贸易学院**Offering College/School:**College of Economics and Trade

课程描述: 公共预算管理是该校为财税专业学生开设的专业核心课程。是一门理论性和实践性很强的学科。它以财政学、中国税制等为前导课程, 为学生以后进一步学习《政府与非营利组织会计》等相关课程打下坚实基础。

本课程主要包括公共预算内涵与政策, 预算管理基础, 预算管理体制, 预算编制、审批、执行与决算, 绩效评价及预算监督等内容。结合新预算法与中国实际, 学生需了解预算管理的各个环节、各种技术和各项要求; 掌握预算理论与实务的基本内容及相关热点问题。通过学习本课程, 有助于培养和提升学生的综合素质和解决实际问题的能力。学生能够运用财政预算理论和方法分析和解决政府财政预算管理中的问题, 能够从事财政预算管理的实际业务, 为改进预算管理提供合理化建议。

Course description: Public budget management is an important compulsory course for the students majoring in finance and tax at Hunan University, Which is a very theoretical and practical subject. It can lay a solid foundation to learn related courses based on Finance, China's tax system. The main content of the course includes: Public budget and its policy, budget management processes, system of budget management, budget preparation, approval, execution and final account, performance evaluation and budget supervision. Combined with the new budget law and the reality of China, students are required to know all aspects, technologies and requirements of budget management and to master the basic content of the theory and practice of budget and related issues.

Through this course, we will cultivate student's comprehensive quality and ability of solving practical problems. Students are able to use the budget theory and method to analyze and solve problems existing in the financial management and to engage in business of budget management so as to provide suggestions for improving budget management.

编 码: EN04004**Code:** EN04004**课程名称:** 国际贸易学**Course Title:** International Trade**课程类别:** 学类核心**Course category:** Major Survey Course**学 分:** 3**Credit(s):** 3**开课单位:** 经济与贸易学院**Offering College/School:** College of Economics and Trade

课程描述: 《国际贸易学》是国际贸易专业的核心课程，主要介绍国际贸易的基本理论与政策。通过该课程的学习使学生能掌握国际贸易的概念、原理和方法，培养其全面、系统地认识和理解商品与服务在世界范围活动及其规律，为学习国际贸易实际操作及其他专业课程奠定良好的基础。其主要内容包括：国际贸易学研究对象、内容和方法；国际分工与世界市场；古典、新古典及当代国际贸易理论；保护贸易理论；国际贸易政策、贸易政策经济效应；生产要素国际流动与跨国公司；世界贸易组织；国际服务贸易；国际技术贸易；区域经济一体化等。

Course description: 《International Trade》Is an international trade professional core courses, Introduces the basic theory and policy of international trade. By learning this course to enable students to grasp the concept of international trade, principles and methods, To develop their comprehensive and systematic knowledge and understanding of goods and services in the world, the scope of activities and its laws, to study international trade practice and other professional courses lay a good foundation. Its main contents include: international trade study object、content and method; international division of labor and world market; classical、neo classical and contemporary international trade theory; protective trade theory; international trade policy; economic effects of trade policy; international flow of production factors and Multi-National corporation; the World Trade Organization ; international service trade; international technology trade; regional economic integration.

编 码: EN04005**Code:**EN04005**课程名称:** 应用统计学**Course Title:**Applied Statistics**课程类别:** 学类核心**Course category:**Major Survey Course**学 分:** 3**Credit(s):**3**开课单位:** 经济与贸易学院**Offering College/School:**College of Economics and Trade

课程描述: 本课程是经济类专业的学类核心课程。通过该课程的教学,使学生能够掌握统计学的基本概念、基本思想和基本方法,为学生学习后续相关专业课程打下必不可少的基础,通过应用统计学的整个教学过程使学生熟悉数据处理、数据分析、数据推断的各种基本方法,逐渐培养学生分析、解决社会经济生活中所遇到的各种问题的能力。主要内容为统计的基本方法和基本原理,具体包括抽样分布、参数估计、假设检验、方差分析与实验设计、相关分析与回归分析等。

Course description: This is a core course for majors of statistics aiming at the student mastery of the basic concepts, ideas and methods of mathematical statistics, thus laying a solid foundation for their study of follow-up courses. The study of this course develops the student ability to understand and use the basic methods of data processing; analysis and inference, and to analyze and solve practical problems. The main contents of this course are the basic approaches and principles of mathematical statistics, including elements of sampling theory, parameter estimation, hypothesis testing, analysis of variance and experimental design, correlation and regression analysis.

编 码: EN04008**Code:** EN04008**课程名称:** 国际经济学**Course Title:** International economics**课程类别:** 学类核心**Course category:** Major Survey Course**学 分:** 3**Credit(s):** 3**开课单位:** 经济与贸易学院**Offering College/School:** College of Economics and Trade

课程描述: 这是一门为经济学类专业开设的专业基础课, 以及为国际经济与贸易及相关专业开设的核心课。通过课程的教学使学生能够掌握国际微观领域的国际贸易理论和国际贸易政策, 包括这些理论的基本观点和相关评价等; 掌握国际宏观领域的国际金融理论和宏观经济政策, 全面理解开放经济条件下的国际收支调节、汇率与外汇市场以及全球经济一体化等理论。通过对国际经济学课程的学习, 使学生充分认识国际贸易、国际投资、国际金融在全球经济中的运行规律, 在全面提高学生经济学素养的同时, 培养学生运用所学的经济学知识进行分析问题、概括问题和解决问题的能力。主要内容包括国际贸易理论、国际贸易政策、汇率和开放经济的宏观经济学以及国际宏观经济政策四个部分。具体包括李嘉图模型、特定要素模型、赫克歇尔-俄林模型、标准贸易模型、国际要素流动、贸易政策工具、国民收入核算与国际收支、货币、利率与汇率、国际货币体系、全球资本市场等。

Course description: International economics is concerned with the effects upon economic activity of international differences in productive resources and consumer preferences and the international institutions that affect them. It seeks to explain the patterns and consequences of transactions and interactions between the inhabitants of different countries, including trade, investment and migration. The study of this course makes students know better about the operation rules of the international trade, investment, and finance in the global economy, develops the students' ability to analyze, summarize and solve practical problems. The main contents of this course are international trade theory, international trade policy, exchange rates and open-economy macroeconomics, international macroeconomic policy, including the Ricardian model, specific factors and income distribution, the Heckscher-Ohlin model, the standard trade model, international factor movements, the instruments of trade policy, national income accounting and balance of payments, money, interest rates, and exchange rates, the international monetary system, the global capital market and so on.

编 码: EN04009**Code:**EN04009**课程名称:** 财政学**Course Title:**Public Finance**课程类别:** 学类核心**Course category:**Major Survey Course**学 分:** 3**Credit(s):**3**开课单位:** 经济与贸易学院**Offering College/School:**College of Economics and Trade

课程描述: 《财政学》是教育部经济管理类核心课程,属于经济学的一个分支。1776 年,亚当·斯密的《国民财富的性质和原因的研究》创立了财政学;1936 年,凯恩斯的《就业、利息和货币通论》兴起了国家干预理论,财政理论备受重视;现代市场经济体制下,财政学逐步演变为一门相对独立的学科,研究市场经济条件下政府财政活动(或称公共经济活动),具体包括财政在政府配置资源中的特殊作用及其运行规律,财政体制和财政制度的改革与建设,财政政策的运用与发展。

本课程对于经济管理类及公共管理类学生深入理解与掌握政府宏观经济管理与政策,以及运用经济理论分析社会政治经济现象等能力培养方面,具有重要的意义。

Course description: Public Finance,as a branch of Economics, is a core course of economic management class judged by Ministry of Education. The course was founded by Adam Smith with The Wealth of Nations in 1776.When The General Theory of Employment,Interest and Money was published by John Maynard Keynes in 1936, theory of state intervention sprung up and so did theory of Public Finance. In modern market economy system, Public Finance has evolved to be a relatively independent discipline,which focus on government fiscal activities(also called public economic activities),including the special role and operation law of government finance in allocating resources,and the reform and construction of financial system,and the application and development of fiscal policy.

The course is of great importance for those students of economic management class and public management class in ability training on deeply understanding and mastering Government macroeconomic management and policy,and analyzing social political and economic phenomenon by using economic theory.

编 码: EN04010**Code:**EN04010**课程名称:** 税收学**Course Title:**Taxation**课程类别:** 学类核心**Course category:**Major Survey Course**学 分:** 3**Credit(s):**3**开课单位:** 经济与贸易学院**Offering College/School:**College of Economics and Trade

课程描述: 本课程是经济学类专业的核心课程,以经济学、财政学为前导课程,为后续税收筹划、税务稽查、税务代理、纳税评估等方面课程的学习提供基础性知识。

本课程主要包括税收基本理论和中国现行税收制度等内容,涉及税收的基本概念、税制要素及税制结构以及我国现行所有税种及其主要规定。学生需了解中国现行税收制度的基本理论和制度框架,理解和掌握各税种的纳税人、课税对象、税目、税率、计税依据、计税方法、减免税规定、纳税期限、纳税地点等。通过学习本课程,学生学会正确处理不同经济业务中的税收问题,正确计算各税种的应纳税额,锻炼和提升自己分析涉税问题和解决涉税问题的能力。

Course description: This course is a professional core curriculum of economics-related specialties, which takes Economics and Finance as leading courses, and provides fundamental knowledge for studying subsequently Tax planning, Tax auditing ,Tax agency, Tax evaluation courses, etc.

This course mainly includes the basic theory of tax and China's current tax system, involving the basic concept of tax, element of tax system and tax structure, as well as all our existing taxes and its major provisions. Students should understand the basic theory and system framework of China's current tax system, and also need to understand and grasp the taxpayer, tax object, tax item and tax rate, taxation basis, taxation method, provision of tax relief, tax payment period, tax payment place, etc. By learning this course, students learn to correctly handle the taxation matters in different economic business, and also to correctly calculate the tax amount payable, thus exercising and promoting the ability to analyse and solve tax-related issues.

编 码: EN04011**Code:**EN04011**课程名称:** 计量经济学**Course Title:**Econometrics**课程类别:** 学类核心**Course category:**Major Survey Course**学 分:** 3**Credit(s):**3**开课单位:** 经济与贸易学院**Offering College/School:**College of Economics and Trade

课程描述: 计量经济学是国际贸易学、经济学、财政学等专业学类核心课程。前导课程为宏观经济学、微观经济学、高等数学、线性代数、概率论与数理统计等, 学生必须预先掌握基本的经济学原理、微积分、矩阵代数以及统计和假设检验等相关知识。本课程是对经济理论以及经济事实的数量化研究, 主要包括经济模型的设计、建立、估计、检验及使用经济模型进行结构分析、预测和政策评估的整个过程。

本课程旨在使学生了解计量经济学的基础知识和基本理论, 理解计量经济模型思想, 掌握常用的计量经济模型, 研究计量经济模型在经济领域中分析问题以及辅助决策的作用和功能, 同时结合具体的经济案例, 掌握并能熟练应用几种主要的计量经济软件, 如 Eviews, Stata 等。本课程将理论联系实际, 将经济学理论、计量模型、案例分析与软件实现相结合, 通过各类经济问题, 采用主要计量经济软件训练学生的数量化基本技能, 提高学生经济分析水平, 尤其是培养学生对各类经济问题的研究能力及综合分析能力。

Course description: Econometrics is a compulsory core course for majors of international trade, economics, finance and management. The prerequisites for this course is Macroeconomics, Microeconomics, Advanced Mathematics, Probability and Mathematical Statistics etc.. Students are required to master the principles of economics, calculus, matrix algebra, statistic methods. This course is about quantitative study of economic theory and economic facts, which includes the specification, parameter estimation, testing of econometric models, and application in the structural analysis, forecasting and policy evaluation

The course aims to enable students to grasp the basic knowledge and fundamental theories of econometrics, understand the idea about econometric modeling, master the basic econometric models, know econometric models' function analyzing the real economic issues and implementing decision support, master and use the major econometric software such as Eviews and Stata. Finally, combining with many economic cases, this course will help students develop the ability to apply the economic theory, econometric models, case studies and econometric software comprehensively, improve the ability to analyze and solve the economic problems, especially develop the innovative research ability.

编 码: EN04012**Code:**EN04012**课程名称:** 国际贸易实务**Course Title:**International Trade Practice**课程类别:** 学类核心**Course category:**Major Survey Course**学 分:** 3**Credit(s):**3**开课单位:** 经济与贸易学院**Offering College/School:**College of Economics and Trade

课程描述: 本课程是国际经济与贸易专业、经济学专业必修课。本课程的前导课程为国际贸易学、国际金融学、国际商法等, 学生必须掌握基本的国际贸易和国际金融理论知识。后续课程将会有外贸英文函电、国际结算、对外贸易谈判等。

学生通过本课程的学习, 1、掌握 INCOTERMS 中的贸易术语, 学会签订国际货物买卖合同, 了解合同商订的基本环节, 掌握进出口合同履行中的基本程序及具体做法, 了解违约的形式及可以采取的各种救济方法。2、通过课堂案例教学和实验教学, 培养学生能运用所学的国际贸易实务知识针对具体问题进行分析与解决实际问题的能力。3、通过《国际贸易实务》实验, 使学生加深理解、验证和巩固课堂教学内容, 更好地掌握国际贸易实务的有关概念, 熟悉进出口业务环节, 掌握国际货物买卖的全过程, 熟悉计算机技术在国际贸易实务中的使用, 通过互联网获取客户和交易信息。

Course description: This is the required course for the specialty of International Economics & Trade and Economics. The leading courses are International Trade, International Finance, International Business Law, etc. The students must master the basic theories of international trade and international finance. Follow-up courses will be English Business Correspondence in Trade, International Settlement, Foreign Trade Negotiation, etc.

The students should, 1. To master the trade terms of INCOTERMS, to learn how to sign the contract of international trade, to understand the basic aspects of signing a contract, to master the basic import and export procedures in the performance of the contract and the specific practices, to learn the forms of breaching the contract and understand the various remedies which can be taken. 2. Train the students to apply the practical knowledge of international trade to analyze specific issues and to solve practical problems by case-teaching in classroom and doing experiments. 3. By doing the experiments of International Trade Practices, to enable the students to deepen understanding, validate and consolidate the content of classroom teaching, to better grasp the concepts of international trade practice, to familiar with the import and export business, to grasp the whole process of international trade, to familiar with the usage of computer technology in the international trade practices, to grasp how to use the Internet to obtain customers and transaction information.

编 码: EN04013**Code:**EN04013**课程名称:** 新制度经济学**Course Title:**New Institutional Economics**课程类别:** 学类核心**Course category:**Major Survey Course**学 分:** 3**Credit(s):**3**开课单位:** 经济与贸易学院**Offering College/School:**College of Economics and Trade

课程描述: 新制度经济学是现代经济学的一个重要和前沿研究领域,是经济学本科专业的一门必修课程。通过本课程的学习,使学生掌握制度经济学基本理论和研究方法;了解制度经济学研究的研究动态和发展趋势;能运用新制度经济学理论和方法分析我国经济社会发展中现实问题,并进行有效的制度设计。

Course description: New Institutional Economics is an important cutting-edge research areas, an required courses for economics undergraduate. By learning through the curriculum, students could master the basic theories and research methods of Institutional Economics, understand institutional economics research developments and trends, be able to use the new institutional economics theories and methods to analyze the practical problems in China's economic and social development, and effectively make system design.

编 码: EN05001**Code:**EN05001**课程名称:** 经济学说史**Course Title:**History of Economic Theory**课程类别:** 专业核心**Course category:**Required Core Course**学 分:** 3**Credit(s):**3**开课单位:** 经济与贸易学院**Offering College/School:**College of Economics and Trade

课程描述: 本课程是经济学专业的核心课程,适用于本科三、四年级。本课程从经济学说史的研究对象、方法、基本问题出发,讲述包括从前资本主义时期到凯恩斯时期的经济思想,涵括重商主义、古典经济学、历史学派、边际学派、新古典学派和凯恩斯经济学等重要流派的思想。学生通过对前人如何发现问题、解决问题的历史考察,培养一种对经济问题的洞察力;通过对前人的理论思维足迹的追踪,寻求现代经济问题的理论发展历程,培养学生对经济问题进行科学研究的能力。

Course description: The course is the core of economics, which applies to junior and senior. The course proceeds from the studying object, methods and basic questions of economic theories history. It talks about economic thoughts from the period of Pre-Capitalist to Keynes period, so it includes Mercantilism, Classical economics, Historical school, Marginal school, Neoclassical school, Keynes economics and some other thoughts of important schools. Through observing and studying historically about how predecessors discover problems and resolve problems, students could develop an insight to economic problems. Through following the tracks of predecessors' theoretical thinking and seek for theory development history of modern economic problems, students can also develop the ability of researching economic problems scientifically.

编 码: EN05002**Code:**EN05002**课程名称:** 西方经济学流派**Course Title:**Western Schools of Economics**课程类别:** 专业核心**Course category:**Required Core Course**学 分:** 3**Credit(s):**3**开课单位:** 经济与贸易学院**Offering College/School:**College of Economics and Trade

课程描述: 本课程是经济学专业必修核心课程。帮助学生掌握 20 世纪 30 年代以来西方经济学不同流派产生的沿革和最新进展,并对各流派的理论观点和政策主张进行分析和评论,力图使学生较为全面地了解当代西方经济学各流派,包括凯恩斯经济学、新古典综合派、新剑桥学派、新凯恩斯主义学派、瑞典学派、货币主义学派、供给学派、理性预期学派、伦敦学派、弗莱堡学派、新制度经济学派、公共选择学派、新制度学派、激进经济学派等国家干预主义和新自由主义主要流派的产生背景、发展过程、代表人物、主要理论观点和政策主张。通过课堂教学,认识经济学发展演变的规律性,培养学生针对具体问题运用不同的理论和方法进行系统分析,并且能对不同理论和政策主张进行比较的能力。

Course description: This is a compulsory core course in Economics. It helps students to master the evolution and the latest progress of various schools within the framework of Contemporary Western Economics since the 1930s, to analyze and review theories and policies those school developed, to understand the various schools of contemporary western economics more comprehensively. The schools will be taught in this course includes the main schools within State Interventionism and Neoliberalism, and the schools within State Interventionism includes Keynesian Economics, the New Classical Synthesis, the New Cambridge school, the New Keynesian school, the Swedish school, the Monetarism school, the Supply-side school, the Rational Expectations school, the London school, the Freiburg school, the New Institutional Economics school, the Public Choice school, the New Institutional school, the Radical Economics school. Besides, this course will teach those schools` background, development process, representative figures, main theory viewpoints and policies. The teaching of this course will help students to know the revolution regularity of Economics, and help them to solve problems based on different theories and methods, and to help them to develop the ability to compare different theories and policies.

编 码: EN05005**Code:**EN05005**课程名称:** 经济博弈论**Course Title:**Economic Game Theory**课程类别:** 专业核心**Course category:**Required Core Course**学 分:** 3**Credit(s):**3**开课单位:** 经济与贸易学院**Offering College/School:**College of Economics and Trade

课程描述: 本课程是经济学专业的专业核心课程,以高等数学和微观经济学为前导课程,为产业经济学、制度经济学、信息经济学等方面课程学习提供必要的方法论基础。博弈论是现代经济学的一个重要发展方向,在众多经济学科、经济领域的理论研究和应用研究中,博弈论成了普遍运用的工具。因此,了解博弈论的概貌,学习博弈论的基本原理和方法,学会运用博弈论工具来分析实际问题是十分重要的。

通过本课程的学习,使学生掌握博弈论的结构、博弈论的分类以及子博弈的定义;掌握完全信息静态博弈、完美信息动态博弈、不完全信息静态博弈和不完全信息动态博弈四种博弈类型的内涵以及纳什均衡、子博弈完美纳什均衡、完美贝叶斯均衡、贝叶斯纳什均衡的定义,并学会用划线法、逆推归纳法等对应求解不同博弈类型的不同均衡解。通过案例分析,学会运用博弈论方法分析信息不对称导致的道德风险、逆向选择等问题,并掌握相应的解决办法。特别注重引导学生形成逐步深入分析问题的思维习惯,培养学生提出问题、分析问题、解决问题的能力。

Course description: Game theory is used extensively in economic thinking to better understand strategic behavior. Not limited to economics, the last three decades have seen the spread of game theory to applications in the fields of political science, international relations, industrial organization, business administration, law, biology, and more. Strategic behavior involves careful decision making in interactive scenarios between rational agents who are well aware of the dependence of interactions. The course will pave a way to learn to analyze such strategic interaction and decision making.

Although this is an introductory course on game theory, it will cover a substantial amount of the methods and topics in the field. To follow the course therefore will require careful and deep understanding of the subtle ideas introduced in class. The exams will then be a test of how well the student has grasped the concepts of game theory, and how effectively the student can apply these concepts to problems.

编 码: EN05006**Code:**EN05006**课程名称:** 区域经济学**Course Title:**Regional Economics**课程类别:** 专业核心**Course category:**Required Core Course**学 分:** 3**Credit(s):**3**开课单位:** 经济与贸易学院**Offering College/School:**College of Economics and Trade

课程描述: 本课程是经济学专业的必修课,以宏观经济学和微观经济学为前导课程。本课程的主要内容包括区域经济发展模式理论,区域产业结构演变规律及原因,区域产业结构评价等。学生需了解并掌握区域经济学的基本理论,区域经济学的分析方法和基本技能。通过学习本课程,学生应学会运用所学经济学知识分析和解析现实区域经济问题,具备基本的区域经济学思维和专业技能,提高学生运用经济学理论分析和解析现实区域经济问题的能力。

Course description: This is the required course for the specialty of economics, based on macroeconomics and microeconomics. This course is mainly about theories of patterns of regional economic development, evolvement rules and evolvement causes of regional industrial structure and evaluation of regional industrial structure. Students are required to familiarize themselves with the basic theories, analytical methods and basic skills of regional economics. They should be able to use what they've learned about regional economics to cope with realistic regional economic problems and be equipped with regional economic logics and skills through this course. This course can also strengthen students' ability to use economic theories to analyze realistic regional economic problems.

编 码: EN05007**Code:**EN05007**课程名称:** 发展经济学**Course Title:**Development Economics**课程类别:** 专业核心**Course category:**Required Core Course**学 分:** 3**Credit(s):**3**开课单位:** 经济与贸易学院**Offering College/School:**College of Economics and Trade

课程描述: 本课程是经济学专业必修核心课程。发展经济学是以发展中国家的经济发展为研究对象,研究发展中国家如何由贫穷发展为富足、由落后发展为先进的一门经济科学。它研究发展中国家的具体发展过程和条件,为尽快实现经济、社会和体制上的变革制定战略和政策措施。

本课程通过对经济增长与发展的关系、发展面临的障碍、发展模式、资本形成、人力资源、技术进步、城市化、工业化、农业进步、财政和金融政策、对外贸易、可持续发展等方面的分析研究,使学生掌握经济发展的基本规律和途径,有助于学生了解发展中国家经济发展的一般规律,把握经济发展的必然趋势,并从发展中国家的实际出发,探索经济发展道路,为制定科学的发展思路、发展战略和发展政策提供理论依据,为思考、分析和解决诸多相关的发展问题提供思路。

Course description: This is a compulsory core course in Economics. As an subject of economic science, Development Economics treats the developing countries as its object to study, researches the issue on how poor developing countries become rich, how backward one become advanced one. This course studies the specific development process and conditions of developing countries, makes strategies and political measures for realizing economic, social, and system change as quickly as possible.

Based on research and analysis of the relationship between economic growth and development, development of obstacles, development mode, capital formation, human resources, technology development, urbanization and industrialization, agricultural progress, fiscal and financial policy, foreign trade and sustainable development , this course help enrolled students to master basic laws of economic development, and understand the general ways of economic development in developing countries, grasp the inevitable trend of economic development. From the perspective of developing countries, this course also help students to explore the road of economic development, provide theoretical basis of formulating scientific development ideas, develop strategies and development policies, and provide ideas for thinking, analyzing and solving many related development problems.

编 码: EN05008**Code:**EN05008**课程名称:** 劳动经济学**Course Title:**Labor Economics**课程类别:** 专业核心**Course category:**Required Core Course**学 分:** 3**Credit(s):**3**开课单位:** 经济与贸易学院**Offering College/School:**College of Economics and Trade

课程描述: 本课程主要针对经济专业三年级学生开设的核心类课程。它以经济学理论,特别是微观经济学和计量经济学为基础,主要探讨劳动力的市场行为,总结支撑各个论点的实证研究结果,并且详细而深入的讨论与各种理论相关的政策问题。课程内容涵盖了劳动力的供给和需求,工资问题,收入再分配问题,人力资本,劳动力流动,市场歧视以及就业和失业等问题。授课方式以教师讲授为主,同时要求学生积极参,完成课后阅读和作业,鼓励学生独立学习和探索精神,能够灵活运用课堂理论知识解决实际问题。要求学生在完成本课程的学习以后,能够掌握劳动经济学的基本理论,为今后的理论学习和实践奠定基础。

Course description: This course is for junior students in the major of economics. Prerequisites are microeconomics and a course in econometrics. It is an introductory course on the basis of economics theories with primary reference to China's economy. This course mainly involves topics such as labor supply and demand, theory of wage determination, inequality and income distribution, human capital, labor mobility, employment and unemployment etc. It requires students to actively participate in-class discussion, and encourages independent research. It aims to acquaint students with traditional topics in labor economics, and prepare students for further study in the future.

编 码: EN05010**Code:**EN05010**课程名称:** 产业经济学**Course Title:**Industrial Economics**课程类别:** 专业核心**Course category:**Required Core Course**学 分:** 3**Credit(s):**3**开课单位:** 经济与贸易学院**Offering College/School:**College of Economics and Trade

课程描述: 产业经济学是经济学专业的专业核心课程,以微观经济学、博弈论为前导课程,以不完全竞争市场运行为主要研究对象,考察市场结构、企业行为和绩效之间的相互关系,是经济学研究的一个重要领域。主要授课内容包括:内容包括:产业组织理论发展历史,产业微观分析基础,企业理论,市场结构学说,垄断和寡头市场的价格行为,垄断竞争与差异化,企业兼并分析,企业进入与退出,企业价格歧视,纵向约束等内容,这些内容从不同方面反映了产业组织领域的新发展和新动态,在微观经济学的基础上深化对产业经济问题和经济现象的认识。

Course description: 《Industrial Economics》 is the required course for the specialty of Economics ,it take noncompetitive market behavior as focus, investigate the relationship of market structure, enterprise' s conduct and its performance, and has become a central element of the micro-economic field. The main contents include: industrial organization theories development, the basic of industry micro analysis, the theory of the firm, the market structure theory, market structure, monopolistic competition and product differentiation, merger analysis, entry and exit of enterprise, price discrimination, vertical restraints and other restraints. These contents reflect the new development of industry organization and deepen the understanding of the industrial economic problem and the economic phenomena in the microeconomics.

编 码: ET05003**Code:** ET05003**课程名称:** 市场营销学**Course Title:** Marketing**课程类别:** 专业核心**Course category:** Required Core Course**学 分:** 3**Credit(s):** 3**开课单位:** 经济与贸易学院**Offering College/School:** College of Economics and Trade

课程描述: 以管理学和微观经济学为前导课程, 本门课程是一门建立在经济科学、行为科学和现代管理理论基础之上的应用科学, 是高等院校财经和管理类专业核心基础课。市场营销学以消费者为中心, 研究在特定的经营环境下, 以市场研究为基础, 为满足消费者现实和潜在的需要所实施的以产品、定价、渠道、促销为主要内容的市场营销活动过程。使学生能掌握市场营销的概念、原理和方法, 培养其全面、系统地认识和理解市场营销活动及其规律的能力。其主要内容包括: 市场营销学的基本概念、市场营销环境、消费者行为理论、市场研究方法、营销战略和 4P 策略。

Course description: Based on Management and Microeconomics, Marketing is an applied science built on economic science, behavioral science and modern management theory, is the core of professional course in major of finance and economics or management. The course put its emphasis on consumer needs, through analyzing specific operating environment, conducting market research, implementing strategies of product, Price, Place, Promotion as the main contents of the process to satisfy real and potential needs of consumer. The course will enable the students to master the concept, the marketing principle and the method, develop their ability to know and understand the marketing activities and rules systematically. The main contents include: the basic concepts, the marketing environment, consumer behavior theory, market research framework, marketing strategy and 4P strategy.

编 码: ET05004**Code:** ET05004**课程名称:** 国际金融学**Course Title:** International Finance**课程类别:** 专业核心**Course category:** Required Core Course**学 分:** 3**Credit(s):** 3**开课单位:** 经济与贸易学院**Offering College/School:** College of Economics and Trade

课程描述: 国际金融是以经济全球化、金融一体化环境为背景,以国际货币流通和国际融投的活动为主体,研究国际货币资金流动、国际银行、国际金融市场、在国际经济中的运行规律、职能作用以及不同国家涉外金融活动的一门学位基础课程。国际金融的先修课为西方经济学和金融学。本科程的教学目的在于使学生掌握现代国际金融的理论体系和内容,具体包括国际货币及汇率、国际资本流动、国际银行、国际金融市场、国际金融监管的基本概念和原理;掌握外汇交易、国际融资和外汇风险防范的基本业务知识与技能。

通过本课程的学习,学生能掌握国际间货币与资本活动的基本规律,理解大量金融信息的基本含义,重点掌握国际收支与国际储备、国际货币流通和国际资金融通方面的知识,并对国际货币制度与国际金融机构有基本的了解;进而能运用国际金融的基本原理和分析方法解释各种金融现象,理解国际金融政策,并能初步进行国际金融实务操作;学生能把握当今国际金融发展的前沿走势,对国际金融的理论、政策和实务能有比较全面系统的理解,作为将来深入研究国际金融问题的基础。

Course description: International finance is a fundamental degree course which studies the moving rules and functions of international monetary capital's transferring, international bank, international finance market in the world economy and international finance activities of different countries.

Teaching Goals of this course are enabling students to grasp the basic theory of international finance, making students get to know international finance practice to some extent and enabling students to put the theory what they have learned into international finance practice in an attempt to make scientific fusion between theory and practice.

编 码: ET05005**Code:** ET05005**课程名称:** 国际商法**Course Title:** International Business Law**课程类别:** 专业核心**Course category:** Required Core Course**学 分:** 3**Credit(s):** 3**开课单位:** 经济与贸易学院**Offering College/School:** College of Economics and Trade

课程描述: 国际商法是一门为国际贸易专业学生开设的专业核心课,以国际商事关系以及国际商事交往中的法律问题为研究对象的综合性课程。通过该课程的教学使学生能够熟悉商务法律环境,了解面临竞争日益激烈的全球市场和贸易摩擦时应如何规范自己的行为,保护自身的合法权益,回避、转移或降低风险,以发展国际贸易,推动经济增长。主要内容为涉及国际贸易和商务运作各环节的国际商事条约、国际贸易惯例以及各国有关商事组织与商事交易的国内民商法。

Course description: The international business law is a core subject course opened for the students majoring in international trade. It is a comprehensive course relating to the international business relationship and the legal issue involved in. Through the teaching of this course, it enables the students to be familiar with the business law environment, get general acknowledgement of how to discipline our behavior when facing the fierce competition and the trade friction in the global market, protect our own legal rights, avoid, transfer or reduce risk, so as to develop international trade and promote the economic growth. The main content of this course is relating to the international business treaty, the international trade practices and the domestic civil and commercial law of the relative foreign business organization and business deal involved in international trade and business operation.

编 码: ET05006**Code:** ET05006**课程名称:** 商务英语**Course Title:** Business English**课程类别:** 专业核心**Course category:** Required Core Course**学 分:** 3**Credit(s):** 3**开课单位:** 经济与贸易学院**Offering College/School:** College of Economics and Trade

课程描述: 通过经贸英语课程的学习,全面提高学生专业英语的听说读写译的能力;使学生能熟练掌握并正确运用国际贸易中常用的英语词汇、搭配和句型;提高学生阅读经济学理论、国际金融、国际贸易、国际投资、企业管理、中国经济改革、中外经济关系等经贸领域的原版报刊文章;能熟练掌握并正确运用国际贸易中常用的英语术语,词汇、搭配和句型,进行口语和书面表达经济贸易领域的基本原理、观点、知识、方法和热点问题;提高经贸应用文和论文写作能力。除了课堂教学,该课程还开展各种形式的实践:如观看经贸英语会话的教学光盘,组织主题英语讨论和口译联系,课后布置英文原版经济贸易领域报刊文章的阅读。

Course description: This course is a compulsory course for students of international economics and trade major. Through the study of business English course, it aims to improve the students' capacity for professional English listening, speaking, reading, writing and translation; enable students to learn how to use international business relative vocabulary, collocations and sentence correctly. Furthermore, it helps student to read academic Journal or newspaper relates to economics, international finance, international trade, international investment, enterprise management, China's economic reform, China and foreign economic relations etc. In addition, it provides the information to students how to correctly apply the international trade terms, vocabulary, combination and patterns of speaking language in English. And also enable students to learn writing expression of basic principles of economic and trade fields, views, knowledge, methods, and hot issues; hence, enhance capability for trade practical and thesis writing. Apart from teaching in class, the course also carry out various forms to practice: watching CDS such as English conversation and negotiation, organizing thematic discussion and interpretation of English contact, arranging students to read original English economic and trade press articles after class.

编 码: ET05009

Code:ET05009

课程名称: 国际商务函电

Course Title:International Business Correspondence

课程类别: 专业核心

Course category:Required Core Course

学 分: 3

Credit(s):3

开课单位: 经济与贸易学院

Offering College/School:College of Economics and Trade

课程描述: 本课程是国际贸易专业的专业核心课程, 与国际贸易实务、国际结算等课程相配套。国际贸易实务和国际结算两门课程可先于或同时于该课程开设。为国际贸易专业学生实务类课程学习提供辅助。前导课程包括大学基础英语、国际金融、电子商务等。

Course description: This is the required course for the specialty of International Economics &Trade and Economics. It is supporting course for International Trade and International Settlement course which can be set before or at the same time. The leading courses are College English, E-Business, etc.



编 码: ET05010**Code:** ET05010**课程名称:** 国际结算**Course Title:** International Settlement**课程类别:** 专业核心**Course category:** Required Core Course**学 分:** 3**Credit(s):** 3**开课单位:** 经济与贸易学院**Offering College/School:** College of Economics and Trade

课程描述: 《国际结算》是本科国际经济与贸易专业的专业核心课，以国际贸易、国际贸易实务为前导课程，为经济与贸易方面课程学习提供实务操作技能。本课程主要包括票据、汇款、托收和信用证等内容，学生需了解国际结算的特点、了解国际结算的内容及作用，熟悉各种结算票据的定义、格式、内容，掌握票据的填制与使用方法，能够进行实际操作。通过学习本课程，学生学会制作各种票据，获得结算实务操作能力，锻炼和提升实践操作能力。

Course description: International Settlement is a core class for the major of international economics and trade. The prerequisites for this course is international trade and Practice of international trade etc. The objectives of learning this course are that: Firstly, it tries to provide some information on fundamental principles and theories which are closely associated with the international payments and settlements. Secondly, it tries to offer the experiences and skills about how to deal with the safe exchange between the proceeds and goods in international trade. Finally, it tries to make the learners familiarize with the customs and practice in international payments and settlements. The main content of this course is instruments, remittance, collection and letter of credit. Students are required to master fill in the documents and the practical operation. The study of this course develops the students' ability to analyze and solve practical problems in international trade transactions, and to operate the business in international settlement. The main contents of this course are the basic approaches and principles of international settlement, the main methods of international settlement and practical operating of international settlement.

编 码: ET05011

Code:ET05011

课程名称: 电子商务

Course Title:E-business

课程类别: 专业核心

Course category:Required Core Course

学 分: 3

Credit(s):3

开课单位: 经济与贸易学院

Offering College/School:College of Economics and Trade

课程描述: 电子商务是一门为国际贸易专业学生开设的专业核心课。通过本课程教学, 使国际经济与贸易专业本科生了解电子商务的基础知识及其在国际贸易领域中应用。重点培养学生网络商务应用及分析能力。

Course description: E - commerce is a specialized core course for international trade majors. Through this course, Enable students to understand the basic knowledge of electronic commerce and its application in the field of international trade. Focus on training students' network business application and analysis ability.



编 码: ET05012**Code:** ET05012**课程名称:** 世界经济概论**Course Title:** Introduction to the World Economics**课程类别:** 专业核心**Course category:** Required Core Course**学 分:** 3**Credit(s):** 3**开课单位:** 经济与贸易学院**Offering College/School:** College of Economics and Trade

课程描述: 《世界经济概论》是以经济全球化、经济增长和经济发展为主线，以世界范围的生产力和生产关系以及生产要素优化配置为研究对象，全面系统的阐述世界经济发展进程、现状和未来趋势，揭示世界经济领域的特有矛盾和规律，为学生进一步学习探讨国际经济问题提供理论基础、基础知识和基础资料，是国际经济与贸易专业本科生的必修课程。《世界经济概论》主要内容包括：经济全球化、国际分工与贸易、国际直接投资与跨国公司、国际货币体系、世界通货膨胀与通货紧缩、区域经济一体化、科技革命与世界经济、世界经济危机与经济发展周期、国家垄断资本主义与宏观经济调控、国际经济协调、发达资本主义国家经济发展、发展中国家经济发展、由计划经济向市场经济转型等。

Course description: 《An Introduction to World Economy》based on economic globalization, economic growth and economic development the main line, the relationship between productivity and production worldwide and optimize the allocation of production factors for the study, a comprehensive and systematic exposition of the process of world economic development, current status and future trends, reveal areas of the world economy endemic conflicts and law students to discuss international economic issues for further study to provide a theoretical basis, basic knowledge and basic information, international economic and trade compulsory undergraduate courses. Its main contents include: economic globalization, the international division of labor and trade, foreign direct investment and multinational corporations, international monetary system, world inflation and deflation, regional economic integration, technological revolution and the world economy, the world economic crisis and the economic development cycle State monopoly capitalism and macroeconomic regulation, international economic coordination, the developed capitalist countries economic development, economic development of developing countries, from a planned economy to a market economy and so on.

编 码: GE02025	Code:GE02025
课程名称: 政治经济学	Course Title:Political Economics
课程类别: 通识必修	Course category:Required General Education Course
学 分: 2	Credit(s):2
开课单位: 经济与贸易学院	Offering College/School:College of Economics and Trade

课程描述: 本课程是经济学类和经济与贸易类专业必修的课程。

马克思主义政治经济学原理课程是大学生的必修课程。该课程的教学目的在于：掌握马克思主义政治经济学的基本理论和观点，深刻认识资本主义生产关系，把握反映社会化大生产客观要求的经济运行的一般规律，全面认识资本运行的基本问题，把握经济全球化发展的大趋势，从而科学认识资本主义的历史进程。

Course description: The course of Principle of Marxist Political Economics is a compulsory course for the college students. It requires students to master the basic theory and opinion of Marxist Political Economics, deeply understand the essence of capitalist relations of production, to grasp the general laws of social production which reflects the objective requirements of economic operation , comprehensively recognizing the basic problem of capital operation, grasp the development trend of economic globalization, thus reasonably understand the historical process of capitalist .

编 码: GE03015	Code: GE03015
课程名称: 微观经济学	Course Title: Micro-Economics
课程类别: 学门核心	Course category: Introductory Major Course
学 分: 4	Credit(s): 4
开课单位: 经济与贸易学院	Offering College/School: College of Economics and Trade

课程描述: 微观经济学是经管类专业学生必修的公共基础课程。它详尽讲述了现代西方经济学理论的基本原理,思维方法和主要内容。是所有其他经济学专业课程学习的基础。它与政治经济学,计量经济学相配套,构成了经济学基础课程体系。

微观经济学的主要内容包括产品定价和要素定价以及微观经济学的进一步发展三大部分。产品定价理论包括市场供求基本原理,消费者行为理论和生产者行为理论以及不同市场类型下单个厂商的决策;要素定价理论解释了西方微观经济学中的收入分配问题;微观经济学的进一步发展则主要介绍了市场失灵与微观经济政策。

通过本课程的学习,要求学生掌握现代西方经济学的基本概念和基本理论,掌握西方经济学所运用的基本分析方法,以作为学习其它专业课程的基础。本课程强调训练学生理论思维能力和创新意识,以增强分析实际经济问题和解决实际经济问题的能力。在教师授课、学生做习题、专题讨论、考试等主要环节上都努力体现这个目标性特征。

Course description: Microeconomics is a basic compulsory course for the students major in economics and management. It describes basic principles, thinking methods and main contents of the theory of modern Western economics in details. It is the basis for all other professional courses in economics. It is matched with political economics and econometrics, as a whole, constitutes the system of the basic curriculum in economics.

The main contents of microeconomics include 3 big parts, which are pricing of output, pricing of factor and the further development of microeconomics. The theory of pricing output includes the basic principles of supply and demand, the theory of consumer behavior and producer behavior theory as well as the decisions of a firm in different types of markets; the theory of pricing factor tries to explain the problem of income distribution in Western microeconomics; the further development of microeconomics mainly describes the market failure and microeconomic policies.

After having this course, students are required to master basic concepts, basic theories, and basic analysis methods of modern Western economics, which are foundations for learning other professional courses. This course emphasizes on training students to have the ability of theoretical thinking and innovation, and, ultimately, helps students to have the ability of analyzing the actual economic problems and solving real economic problems.

编 码: GE03016**Code:**GE03016**课程名称:** 宏观经济学**Course Title:**Macroeconomics**课程类别:** 学门核心**Course category:**Introductory Major Course**学 分:** 4**Credit(s):**4**开课单位:** 经济与贸易学院**Offering College/School:**College of Economics and Trade

课程描述: 《宏观经济学》是经管类专业学生必修的公共基础课程，以《微观经济学》为前导，是所以其他经济学和管理学专业课程学习的基础。该课程详尽讲述了宏观经济学理论的基本原理，思维方法和主要内容。它与《微观经济学》、《政治经济学》、《计量经济学》相配套，构成了经济学基础课程体系。《宏观经济学》关注总量变量，比如 GDP 的增长和波动，失业率，货币量和通货膨胀等等，探讨它们的决定因素。在此基础上，涉及宏观经济政策，比如财政政策和货币政策分析。课程特点：1、教学内容在主体稳定的基础上，努力跟踪学科前沿，在教学过程中反映学科的最新发展和最新成果。2、多种教学资源综合使用。在教学过程中应用案例教学，通过案例把理论同实际结合起来；课后通过习题让同学们熟悉数学工具的使用；实践课堂通过学生分组讨论加深对知识点的理解。

Course description: Macroeconomics is the study of the behavior of the whole (aggregate) economies or economic systems instead of the behavior of individuals, individual firms, or markets (which is the domain of Microeconomics). Macroeconomics is concerned primarily with the forecasting of national income, through the analysis of major economic factors that show predictable patterns and trends, and of their influence on one another. These factors include level of employment/unemployment, gross national product (GNP), balance of payments position, and prices (deflation or inflation). Macroeconomics also covers role of fiscal and monetary policies, economic growth, and determination of consumption and investment levels.

编 码: GE03039	Code:GE03039
课程名称: 微观经济学	Course Title:Microeconomics
课程类别: 学门核心	Course category:Introductory Major Course
学 分: 4	Credit(s):4
开课单位: 经济与贸易学院	Offering College/School:College of Economics and Trade

课程描述: 微观经济学是经管类专业学生必修的公共基础课程。它详尽讲述了现代西方经济学理论的基本原理, 思维方法和主要内容。是所有其他经济学专业课程学习的基础。它与政治经济学, 计量经济学相配套, 构成了经济学基础课程体系。

微观经济学的主要内容包括产品定价和要素定价以及微观经济学的进一步发展三大部分。产品定价理论包括市场供求基本原理, 消费者行为理论和生产者行为理论以及不同市场类型下单个厂商的决策; 要素定价理论解释了西方微观经济学中的收入分配问题; 微观经济学的进一步发展则主要介绍了市场失灵与微观经济政策。

通过本课程的学习, 要求学生掌握现代西方经济学的基本概念和基本理论, 掌握西方经济学所运用的基本分析方法, 以作为学习其它专业课程的基础。本课程强调训练学生理论思维能力和创新意识, 以增强分析实际经济问题和解决实际经济问题的能力。在教师授课、学生做习题、专题讨论、考试等主要环节上都努力体现这个目标性特征。

Course description: Microeconomics is a basic compulsory course for the students major in economics and management. It describes basic principles, thinking methods and main contents of the theory of modern Western economics in details. It is the basis for all other professional courses in economics. It is matched with political economics and econometrics, as a whole, constitutes the system of the basic curriculum in economics.

The main contents of microeconomics include 3 big parts, which are pricing of output, pricing of factor and the further development of microeconomics. The theory of pricing output includes the basic principles of supply and demand, the theory of consumer behavior and producer behavior theory as well as the decisions of a firm in different types of markets; the theory of pricing factor tries to explain the problem of income distribution in Western microeconomics; the further development of microeconomics mainly describes the market failure and microeconomic policies.

After having this course, students are required to master basic concepts, basic theories, and basic analysis methods of modern Western economics, which are foundations for learning other professional courses. This course emphasizes on training students to have the ability of theoretical thinking and innovation, and, ultimately, helps students to have the ability of analyzing the actual economic problems and solving real economic problems.

编 码: GE03040**Code:**GE03040**课程名称:** 宏观经济学**Course Title:**Macroeconomics**课程类别:** 学门核心**Course category:**Introductory Major Course**学 分:** 4**Credit(s):**4**开课单位:** 经济与贸易学院**Offering College/School:**College of Economics and Trade

课程描述: 《宏观经济学》是经管类专业学生必修的公共基础课程，以《微观经济学》为前导，是所以其他经济学和管理学专业课程学习的基础。该课程详尽讲述了宏观经济学理论的基本原理，思维方法和主要内容。它与《微观经济学》、《政治经济学》、《计量经济学》相配套，构成了经济学基础课程体系。

《宏观经济学》关注总量变量，比如 GDP 的增长和波动，失业率，货币量和通货膨胀等等，探讨它们的决定因素。在此基础上，涉及宏观经济政策，比如财政政策和货币政策分析。

课程特点：1、教学内容在主体稳定的基础上，努力跟踪学科前沿，在教学过程中反映学科的最新发展和最新成果。2、多种教学资源综合使用。在教学过程中应用案例教学，通过案例把理论同实际结合起来；课后通过习题让同学们熟悉数学工具的使用；实践课堂通过学生分组讨论加深对知识点的理解。

Course description: Macroeconomics is the study of the behavior of the whole (aggregate) economies or economic systems instead of the behavior of individuals, individual firms, or markets (which is the domain of Microeconomics). Macroeconomics is concerned primarily with the forecasting of national income, through the analysis of major economic factors that show predictable patterns and trends, and of their influence on one another. These factors include level of employment/unemployment, gross national product (GNP), balance of payments position, and prices (deflation or inflation). Macroeconomics also covers role of fiscal and monetary policies, economic growth, and determination of consumption and investment levels.

编 码: ME04029**Code:**ME04029**课程名称:** 经济学**Course Title:**Economics**课程类别:** 学类核心**Course category:**Major Survey Course**学 分:** 3**Credit(s):**3**开课单位:** 经济与贸易学院**Offering College/School:**College of Economics and Trade

课程描述: 《经济学》是为工业工程专业学生开设的核心基础课，以微积分为先导课程。设立本课程是为了让学生了解现代西方经济学理论的基本原理，思维方法和主要内容。本课程主要包括经济学的研究对象和方法论，西方经济学说的演变和发展，需求、供求与均衡价格，消费者行为理论，生产者行为理论，比较优势与国际贸易理论，国民收入核算和决定理论，现代银行与货币理论，宏观经济政策等内容。学生需了解经济学的基本原理、分析工具及方法，掌握市场经济运行的基本规律，并能灵活运用理论对经济问题和经济现象进行简单分析。通过学习本课程，学生对经济学的基本问题和基本观点有比较全面的认识，能够建立起经济学的基本思维框架，锻炼和提升了分析和解决经济问题的能力。

Course description: Economics is a core compulsory course for the students majoring in Industrial engineering. The prerequisites for this course is calculus. It is established for students to understand the basic principle of the modern western economics theories, methods and main contents; This course mainly includes the object and methods also the evolution and development of the western economy theories, the supply-demand theory and the formation of equilibrium price, theories of consumer behavior and producer behavior, theories of comparative advantage and international trade, theory of accounting and decision of national income, theories of modern banking and monetary, macroeconomic policies and other contents. Students need to understand the basic economic principles, analysis methods and tools, they should master the basic rules of the operation of the market economy, and flexibility in the use of the theory of economy to analyses the phenomena and to solve the problems. Through the study of this course, the students having gotten a more comprehensive understanding of the basic problems of economics and the basic point of view, can establish the fundamental framework of economics, and develop the ability to solve the economic problems in daily life.

编 码: PA03001**Code:**PA03001**课程名称:** 经济学**Course Title:**Introduction to Economics**课程类别:** 学门核心**Course category:**Introductory Major Course**学 分:** 4**Credit(s):**4**开课单位:** 经济与贸易学院**Offering College/School:**College of Economics and Trade

课程描述: 《经济学导论》是政治类专业的核心基础课，以微积分为先导课程，是所有其他经济学专业课程学习的基础。设立本课程是为了让学生了解现代西方经济学理论的基本原理，思维方法和主要内容。本课程主要包括经济学的研究对象和方法论，西方经济学说的演变和发展，需求、供求与均衡价格，消费者行为理论，生产者行为理论，比较优势与国际贸易理论，国民收入核算和决定理论，现代银行与货币理论，宏观经济政策等内容。学生需了解经济学的基本原理、分析工具及方法，掌握市场经济运行的基本规律，并能灵活运用理论对经济问题和经济现象进行简单分析。通过学习本课程，学生对经济学的基本问题和基本观点有比较全面的认识，能够建立起经济学的基本思维框架，锻炼和提升了分析和解决经济问题的能力。

Course description: Introductory Economics is a core compulsory course for the students major in political science. The prerequisites for this course is calculus. It is the basis for all other professional courses in economics. It is established for students to understand the basic principle of the modern western economics theories, methods and main contents; This course mainly includes the object and methods also the evolution and development of the western economy theories, the supply-demand theory and the formation of equilibrium price, theories of consumer behavior and producer behavior, theories of comparative advantage and international trade, theory of accounting and decision of national income, theories of modern banking and monetary, macroeconomic policies and other contents. Students need to understand the basic economic principles, analysis methods and tools, they should master the basic rules of the operation of the market economy, and flexibility in the use of the theory of economy to analyse the phenomena and to solve the problems. Through the study of this course, the students having gotten a more comprehensive understanding of the basic problems of economics and the basic point of view, can establish the fundamental framework of economics, and develop the ability to solve the economic problems in daily life.

编 码: JM03012	Code:JM03012
课程名称: 公共关系学	Course Title:Public Relations
课程类别: 学门核心	Course category:Introductory Major Course
学 分: 2	Credit(s):2
开课单位: 新闻传播与影视艺术学院	Offering College/School:College of Journalism Communication and Film Tv Arts

课程描述: 本课程是新闻传播类专业学门核心课程, 为新闻学、广告学方面课程学习提供理论基础。

本课程主要包括公共关系的内涵与外延、公共关系的历史、公共关系主体、公共关系客体、公共关系的主要范式、公共关系规划、危机管理、政府、非政府组织、企业的公共关系等内容。学生需了解公共关系产生的原因、公共关系主体与公共关系客体, 理解公共关系与相关概念的区别, 掌握公共关系的主要范式、危机管理及政府、非政府组织公共关系存在的问题, 并能熟练运用公共关系方法。

通过学习本课程, 使学生掌握公共关系的基本概念和基本规律, 培养学生运用公共关系理论解析相关问题、规划公共关系的能力。

Course description: Course description: The course is a core course for students majoring in journalism and communication, which provides basic theories for professional learning in the major of journalism and advertising.

The course mainly includes intension and extension of public relations, the history of public relations, the main paradigms, subject and object of public relations, planning of public relations, crisis management and public relations in government, NGO and business. Students should know why public relations occur in USA, subject and object of public relations, understanding the difference between public relations and relevant concepts, grasping the main paradigms, crisis management, problems in government, NGO and business, and using the approaches of public relations skillfully.

Through studying this course, students need to master the basic concepts and theories of public relations. And the course is designed to enhance the students' abilities to analyze issues and manage public relations with relative theories.

编 码: JM04001	Code:JM04001
课程名称: 新闻传播史(一)	Course Title:History of Journalism and Communication I
课程类别: 学类核心	Course category:Major Survey Course
学 分: 2	Credit(s):2
开课单位: 新闻传播与影视艺术	Offering College/School:College of Journalism Communication and Film Tv Arts

课程描述: 《中国新闻传播史》是新闻学与传播学专业必修的基础课程。本课程对中国由古而今的新闻事业发展的历史作了形象、动态的描绘与串解。内容上,以新闻界人物的活动、思想及新闻传播方式的演化为主体对象,系统展示我国新闻传播事业产生、发展以及其功能扩展的历史过程及其因由。编排上以时间为序,包括:中国古代新闻传播事业,中国近代新闻传播事业,中国现代新闻传播事业,中国当代新闻传播事业。课程的重点是中国近百年的新闻传播事业发展历史。

Course description: The history of Chinese Journalism and Communication is the professional compulsory foundation course in the study of Journalism and Communication.This course aims to describe and explain the history and development of Journalism from ancient times till now visually and dynamically.It mainly includes the activities of the famous figures in the press , their thoughts and the changes of typical models of journalism and communication,demonstrating the birth,development, the history and causes of expanding functions of Journalism and Communication systematical. The course is arranged in time sequence from ancient Chinese Journalism and Communication ,modern Chinese Journalism and Communication to contemporary Chinese Journalism and Communication. The course focuses on the history and development of Journalism and Communication in the past hundred years.

编 码: JM04002

Code:JM04002

课程名称: 新闻传播史(二)

Course Title:History of Journalism and Communication II

课程类别: 学类核心

Course category:Major Survey Course

学 分: 2

Credit(s):2

开课单位: 新闻传播与影视艺术
学院

Offering College/School:College of Journalism
Communication and Film Tv Arts

课程描述: 内容暂缺

Course description: There is no contents at present.



编 码: JM04011**Code:** JM04011**课程名称:** 新闻学概论**Course Title:** Introduction to Journalism**课程类别:** 学类核心**Course category:** Major Survey Course**学 分:** 3**Credit(s):** 3**开课单位:** 新闻传播与影视艺术
学院**Offering College/School:** College of Journalism
Communication and Film Tv Arts

课程描述: 本课程是新闻传播学类核心课程,也是学习新闻传播学诸课程的前导。新闻学是研究人类社会新闻传播现象和新闻传播活动的科学。本课程主要阐释新闻学的基本概念、基本理论等内容,学生需要了解新闻学的基本概念、基本理论,理解新闻传播与人类社会的互动关系,掌握相关理论的来源与应用,并能灵活运用新闻传播学相关理论去认识和分析评价新闻传播历史和变动中的新闻传播活动等。通过学习本课程,学生学会新闻学基本理论,获得关于新闻传播学科的基本认识,锻炼和提升理论学习能力、思辨能力、分析能力等。

Course description: Principle of Journalism is the basic theory course of Journalism, and it is the prime guide for studying all the other courses on Journalism and Communication science. It focuses on the communication phenomenons and activities of journalism, especially the interactive relationship between news communication and human society. The course talks about the basic concepts and basic theories of Journalism, etc. Students should understand all those basic concepts and theories, comprehend the relationship between news communication and human society, master the resours and applications of those theories, and apply it to analyze and evaluate the histories and changes of Journalism. Having Finished this course, students will know the basic theories and whole system of Journalism, practicing and imporving their studying abilities, critical thinking abilities and analyzing abilities.

编 码: JM04012

Code:JM04012

课程名称: 广告学概论

Course Title:Introduction to Advertising

课程类别: 学类核心

Course category:Major Survey Course

学 分: 3

Credit(s):3

开课单位: 新闻传播与影视艺术
学院

Offering College/School:College of Journalism
Communication and Film Tv Arts

课程描述: 本课程为广告学专业本科生的专业必修课程,是广告学其他专业课程的先行课程,后续课程将会有广告策划与创意、广告调查与统计、广告文案写作、广告经营管理等。通过本课程的学习,使学生系统掌握本专业的基础理论,并为本专业后续课程学习打下良好基础。

Course description: This course is a compulsory course for the students of advertising major, as a first professional course before the other; the following courses will be advertising planning and creative investigation and statistics, AD copy writing, advertising management, etc. Through the study of this course, students will grasp the basic theory of professional system, and lay a good foundation for the following professional courses.

编 码: JM04013	Code: JM04013
课程名称: 传播学概论	Course Title: Introduction to communication
课程类别: 学类核心	Course category: Major Survey Course
学 分: 3	Credit(s): 3
开课单位: 新闻传播与影视艺术 学院	Offering College/School: College of Journalism Communication and Film Tv Arts

课程描述: 近年来,我国信息化进程十分迅速,报纸、广播、电视、电影、期刊等传统大众传播媒介的普及程度越来越高,卫星通信、因特网等新的信息传播技术发展日新月异。在信息的接触、收集、处理与传播成为个人、团体、组织最基本工作的今天,传播学成为全社会范围内普及与应用的基础知识。对新闻传播学专业的学生而言,更需要熟悉掌握传播学的基本知识。本课程运用辩证唯物主义与历史唯物主义的原理对信息的传播进行科学的阐述与分析,对现代人类社会中的人际传播、群体传播、组织传播、大众传播领域内的主要问题进行较为全面的阐述、分析与输理,从而勾画出传播学的基本理论框架。为学生将来的工作建立一定的理论基础。

Course description: With the rapid development of informationalization in recent years, the conventional mass media in our country, such as newspaper, broadcast, television, movie and periodical, are gaining an increasing popularization. And the new information technologies including satellite communication and Internet are developing with each passing day. Communications has become the popular and basic knowledge for application in today's world when the contact, collection, procession and communication of information has become a daily routine for any individual, company and organization. As far as the students majoring in public relations and in mass media are concerned, it is, therefore, much more necessary to acquire the basic knowledge of communications. The course gives an elaboration and analysis to the communication of information in terms of dialectical materialism and historical materialism; and a comprehensive clarification and classification to the major issues in the fields of inter-personal communication, group communication, organization communication and mass communication carried out in modern human society and goes further to make an outline of the basic theories of communications so as to help students lay certain theoretical base for their future jobs.

编 码: JM04014

Code:JM04014

课程名称: 广告策划与创意

Course Title:Advertising Planning and Creation

课程类别: 学类核心

Course category:Major Survey Course

学 分: 3

Credit(s):3

开课单位: 新闻传播与影视艺术
学院

Offering College/School:College of Journalism
Communication and Film Tv Arts

课程描述: 《广告策划与创意》是一门广告专业必修课程, 主要解答为什么和具体怎么样进行广告活动的问题。它是广告活动的一个核心环节。本课程要求学生系统深入地了解 and 掌握广告策划与创意的基本理论知识与思维方法, 包括广告策划的程序与内容、策略与实践、广告创意的观念与流程、方法与手段以及创意魅力。培养学生运用广告策划与创意的核心理念进行策划创意能力。

Course description: in Advertising professional, which is to solve the problem of why and how to deal with advertising campaigns. It is the core of an advertising campaign. This course will require the students to understand and master the basic theoretical knowledge and thinking method in this area systematically and deeply , including the program ,content , strategy and practice of Advertising planning , the concept , process, method and measures of Advertising creative and its charm . It is designed to cultivate the students' skills of using the core ideas in this area to do great planning and creative campaigns .

编 码: JM04015	Code:JM04015
课程名称: 新闻采写(一)	Course Title:News Collecting and Writing (1)
课程类别: 学类核心	Course category:Major Survey Course
学 分: 3	Credit(s):3
开课单位: 新闻传播与影视艺术	Offering College/School:College of Journalism Communication and Film Tv Arts

课程描述: 《新闻采写（1）》是一门为新闻传播类专业学生开设的学类核心课。主要内容涵盖：新闻采访原理和新闻采访方法两大部分，其中采访原理包括：新闻采访活动的本质属性、特征、路线、主体；新闻采访方法主要包括：新闻事实的识别及其方法、新闻采访选题的确定及其要领、新闻采访的工作程序及其方法与技巧、新闻采访的策划及其方法、新闻观察活动及其方法、新闻采访类型及其特殊要求等。

Course description: News Gathering and Writing Part One is a speciality core course set up especially for students majoring in News and Journalism. It is mainly about News Gathering and Writing principles & News Gathering and Writing skills. The former consists of the essential nature, the characteristics, route and subject of the News Gathering and Writing activity. Included in the latter are the distinguishing of news fact and its method, the choosing of interview topic and its approach, the working procedure, method and skill of news gathering, the planning of news interview and its strategy, observation in news gathering and its technique & types of news interview and their special requirements, etc.

编 码: JM04016

Code:JM04016

课程名称: 电视摄像与编辑

Course Title:TV Shooting and Editing

课程类别: 学类核心

Course category:Major Survey Course

学 分: 3

Credit(s):3

开课单位: 新闻传播与影视艺术
学院

Offering College/School:College of Journalism
Communication and Film Tv Arts

课程描述: 《电视摄像与编辑》是为新闻传播学相关专业（及方向）开设的专业核心课，旨在使学生通过该课程的学习，了解电视摄像及电视编辑的基本原理和基本规则，掌握电视摄像、编辑的一般操作方法，学会制作视频节目，并在此过程中培养影像思维及表达能力，为学生今后从事影像传播工作打下良好基础。

Course description: Television camera and editing is a core course on journalism and communication related field (or direction). This course is designed to make students understand the basic principles and rules of TV camera and editing as well as master general operation methods. Also, during this course, students will learn to make video programs and are expected to establish the visual thinking and expressing abilities in the process, which will lay a good foundation for students who engage in image communication work.

编 码: JM04017 **Code:** JM04017
课程名称: 网络与新媒体概论 **Course Title:** Introduction to Network and New Media
课程类别: 学类核心 **Course category:** Major Survey Course
学 分: 2 **Credit(s):** 2
开课单位: 新闻传播与影视艺术学院 **Offering College/School:** College of Journalism Communication and Film Tv Arts

课程描述: 网络与新媒体概论是为网络与新媒体概论是为新闻学专业和广告学专业学生开设的专业核心课程，以传播学概论为前导课程，为新媒体方面的课程提供基础。本课程主要包括网络与新媒体概述、新媒体类型、新媒体技术变革、新媒体与新闻传播、新媒体与政治和新媒体与经济等内容。学生需要掌握新媒体的基本概念、主要类型和相关理论，并能灵活分析新媒体崛起对新闻传播、政治和经济所形成的重大影响。通过学习本课程，学生学会新媒体的发展历史和趋势走向，获得了分析和解决新媒体领域内实际问题的能力。

Course description: The Introduction to Internet and New Media is a core course for students majoring in journalism and advertising, with the introduction of communication as the leading course, which provides the basis for the new media courses. This course includes an overview of the Internet and new media, new media types, new media technology changes, new media and politics, new media and economy. Students need to grasp the basic concepts, main types and related theories of new media, and to analyze the impact of the rise of new media on the formation of journalism, politics and economy. Through the study of this course, the students learn the development of new media and trends, to obtain the ability to analyze and solve practical problems in the field of new media.

编 码: JM04018	Code:JM04018
课程名称: 媒介经营管理	Course Title:Media Operation and Management
课程类别: 学类核心	Course category:Major Survey Course
学 分: 3	Credit(s):3
开课单位: 新闻传播与影视艺术 学院	Offering College/School:College of Journalism Communication and Film Tv Arts

课程描述: 这是一门为新闻传播学和广告学等相关专业学生开设的学类核心课程, 通过该课程的教学, 使学生能够掌握媒介经营与媒介管理的基本概念、基本知识和基本原理, 了解媒介经营管理的内容、目标、运作方式与机制, 为学生进一步学习传媒与文化产业经营管理的其他专业课程奠定理论基础。通过该课程的教学, 引导学生密切关注媒介实践, 深刻剖析媒介经营管理的成功案例, 不断提高学生运用所学知识来分析和解决问题的能力。该课程主要教学内容为: 媒介和媒介产业、媒介经营管理理念、媒介经营管理对象、媒介集团经营、媒介资本经营、媒介品牌经营等。

Course description: This is a Professional Education course established for the students majoring in Journalism, Communication, Advertisement and others. The course enables students to master the basic knowledge, concepts, and principles of media management and also make students learn the content, objectives, operation methods and mechanisms of media management for students. Through the course of teaching, the students would lay a foundation for further studies on other professional courses of management of media and culture industry. The teaching practice can also guide students to pay close attention to media practice, deeply analyze the successful cases of media management and improve the students' abilities to apply their knowledge to analyze and solve problems. The teaching contents of this course include media and media industry, media management.

编 码: JM04019	Code:JM04019
课程名称: 媒介经济学	Course Title:Media Economics
课程类别: 学类核心	Course category:Major Survey Course
学 分: 3	Credit(s):3
开课单位: 新闻传播与影视艺术	Offering College/School:College of Journalism Communication and Film Tv Arts

课程描述: 《媒介经济学》是新闻学专业的基础课程。媒介经济学主要研究媒介资源的最优配置问题。由于媒介本身的特殊属性,媒介经济运行存在其内在独特的运行规律。本课程主要以现代西方经济学理论为基本的分析框架,讨论媒介商品价格决定、媒介供求、媒介消费、媒介企业与市场、收入分配和一般均衡等理论。由于媒介经济学课程有较强的学科交叉性,课程讲授中也会涉及到相关的新闻学原理和传播学原理。通过学习本课程,学生可以更充分地理解当前媒介经济运行状况和国家的媒介发展政策原理,获得研究媒介经济和管理媒介企业所必备的知识和能力,为其今后的工作和进一步深造奠定坚实的基础。

Course description: "Media Economics" is the basis of professional journalism courses. The major concern of "Media Economics" is the optimal allocation of resources. Due to the special nature of the medium itself, the media economy has its inherent unique operating rules. This course takes western economics theory as the basic analysis framework and discusses price decision theory, the supply and demand of media theory, media consumption, media companies and markets, income distribution and general equilibrium theory. Because of the intersection of the subjects, it also involves the relevant principles of journalism and communication principles. By learning this course, students are able to learn about the current operating status of the media and media development policy principles of the country's economy more fully and access to the knowledge of media economics and the essential ability to manage medium enterprises, which will lay a solid foundation for future work and further study.

编 码: JM04020

Code:JM04020

课程名称: 新闻传播伦理与法规

Course Title: Ethics and Law of Journalism and Communication

课程类别: 学类核心

Course category: Major Survey Course

学 分: 3

Credit(s): 3

开课单位: 新闻传播与影视艺术
学院

Offering College/School: College of Journalism
Communication and Film Tv Arts

课程描述: 这是为新闻学、广告学专业本科生开设的一门专业核心课。本课程通过讲授新闻传播伦理和法律法规的基本知识以及传播领域经常出现的相关问题、冲突与选择, 加深学生对媒体伦理和媒体法理论和实践的认识与思考, 培养学生系统分析媒体伦理道德和媒体法问题的能力, 以便在未来的职业生涯中自信而有效地面对和适应现实的挑战。

Course description: Ethics and Law of Journalism is a required course for undergraduates majoring in Journalism and Advertising. The course focuses on the basic principles of journalistic ethics and development of journalism law in China and other countries. The course gives high attention on case studies in related areas as well in order to enlighten the students in journalism practice. It is hoped that student can face the challenge more confidently and morally in their future careers.

编 码: JM04021	Code:JM04021
课程名称: 市场调查与分析	Course Title:Market Survey and Analysis
课程类别: 学类核心	Course category:Major Survey Course
学 分: 3	Credit(s):3
开课单位: 新闻传播与影视艺术	Offering College/School:College of Journalism Communication and Film Tv Arts

课程描述: 这是一门为新闻传播类专业本科生开设的一门必修的基础课。通过该课程的教学使学生能够掌握市场调查的基本原则、方法和技巧,能运用市场调查的方法和技巧对相关社会现象与问题进行分析与评估。主要内容包括三部分,第一部分为市场调查方案的设计与实施,主要包括市场调查流程、方法与技巧;第二部分为视听率调查、欣赏指数调查、读者调查等传媒业通行调查的设计与实施;第三部分为运用统计方法与软件分析市场调查所得资料。

Course description: This is a basic course for the students studying the journalism and communication specialties, aiming at the students' mastery of the basic principle, method and skills of market survey, and the development of their analyzing abilities in phenomena in the opinion of market survey. The contents of the course include three sections: the first part is about the design and implementation of market research program, mainly including the procedure, method and technique of market research, the second part is about the design and implement of the ratings, the appreciation index survey, the reader surveys and other common media market researches, the third part is about application of statistical principle and software in market research.

编 码: JM05002	Code:JM05002
课程名称: 中外广告史	Course Title:The History of Chinese and Foreign Advertising
课程类别: 专业核心	Course category:Required Core Course
学 分: 3	Credit(s):3
开课单位: 新闻传播与影视艺术 学院	Offering College/School:College of Journalism Communication and Film Tv Arts

课程描述: 这是一门为广告专业学生开设的专业基础课, 通过该课程的教学使学生能够掌握中外广告史的基本概念、基本史实、基本理论。本课程能够训练学生观察解决问题的能力。本课程以中国广告及世界广告的发展为主要研究对象, 按照历史的发展阶段论述广告事业在特定历史条件下的发展与变化, 从而为现代广告事业提供借鉴与经验。主要内容包括: 广告起源, 中国古代社会到鸦片战争前的广告, 鸦片战争到建国前的广告, 新中国成立以来的我国大陆广告, 台湾及香港地区的广告史, 以及美国、英国、日本等国家的广告发展史。

Course description: This is a basic course for majors of advertising, aiming at the students' mastery of the basic concepts and facts and theories of the History of Chinese and Foreign Advertisement. The study of this course not only develops students' intellectual and problem solving skills, but also develops students' capacity to apply history knowledge and history methods to fulfil personal and societal needs. This course takes the development of the Chinese and Foreign Advertisement as the main research object, according to the historical stage of development of the advertising in the specific historical conditions, research the changes and developments of modern advertisement. Main contents include: the origin of advertisement, history advertisement knowledge in China, Taiwan and Hong Kong area, as well as America, Britain, Japan and other countries of advertising.

编 码: JM05029

Code:JM05029

课程名称: 马克思主义新闻思想

Course Title:Marxism Ideology of Journalism

课程类别: 专业核心

Course category:Required Core Course

学 分: 2

Credit(s):2

开课单位: 新闻传播与影视艺术

Offering

College/School:College

of

Journalism

学院

Communication and Film Tv Arts

课程描述: 内容暂缺

Course description: There is no contents at present.



编 码: JM05030	Code:JM05030
课程名称: 新闻采写(二)	Course Title:News Collecting and Writing (2)
课程类别: 专业核心	Course category:Required Core Course
学 分: 3	Credit(s):3
开课单位: 新闻传播与影视艺术	Offering College/School:College of Journalism Communication and Film Tv Arts

课程描述: 本课程为新闻传播学专业学生的学类核心课,是学习者通过新闻采写(一)的“新闻采访”技能学习之后,有关“新闻写作”的方法与技巧研讨与训练。重点讲授:新媒体环境下,作为职业新闻记者应当如何根据新闻价值大小,甄别、选择现有新闻素材,准确查找并补充相关新闻背景,采取一定的报道方式和报道体裁,通过文字、声音、本课程为新闻传播学专业学生的学类核心课——“新闻写作”。该课程要求学习者在学过新闻采写(一)(即“新闻采访”)的理论与方法之后,进一步学习掌握处理新闻素材并写作出新闻报道,以适合互联网+时代不同媒体平台的新闻传播内容要求。重点讲授:新媒体环境下,作为职业新闻记者应当如何根据新闻价值大小,甄别、选择现有新闻素材,准确查找并补充相关新闻背景,采取一定的报道方式和报道体裁(消息或通讯),通过文字、音频、视频、图像等符号组合,进行准确的信息符号表达,并通过不同的媒体平台(报纸、广播、电视、网络或其他新媒体),向各自的定位受众群,及时报道不同体裁的新闻。这就要求学生通过该课程的学习,掌握新闻写作的一般理论和基本知识,能娴熟运用信息时代多媒体平台下,不同类型的消息与通讯之写作要领,具备采访报道新闻的基本能力和素养。主要内容为新媒体环境下的新闻素材选择、新闻写作的原则和要求、新闻主题的提炼、适合不同媒体平台要求的消息与通讯两大类文体的写作技巧等等。

Course description: This course is the professional core curriculum for journalism majors, which is the discussion and training about methods and skills of news writing after learning the course of Journalism Interview and writing (1),to adapt to the requests of communication contents in different media under internet+ era . Key points: Under the new media environment, as professional journalists, according to news value , will learn how to distinguish , select the existing news source material, search and supplement accurately the related background, adopting certain report way and the report literature style, through which are the writing, the sound, the phantom and so on conforming to the combination, in order to carry the accurate message express, to the different media (newspaper, broadcast, television, network or other new media) to report promptly to the audiences who they aimed at with the latest news and information. The students are required to master the news writing the general theory and the elementary knowledge, utilize adeptly by writing the news primarily,the newsletter, the feature article and so on for the auxiliary one on the multimedia platforms of the information age, have the basic ability of the news coverage and literacy. The primary coverage is the principle of news material selection, the general requirements for news writing, the refined news theme, the essential writing skill in news and newsletter required for different media under the new media environment.

编 码: JM05031	Code:JM05031
课程名称: 新闻编辑	Course Title:News Editing
课程类别: 专业核心	Course category:Required Core Course
学 分: 3	Credit(s):3
开课单位: 新闻传播与影视艺术	Offering College/School:College of Journalism Communication and Film Tv Arts

课程描述: 新闻编辑是新闻业务的专业核心课程。既是学生新闻采访、写作、编辑等具体业务工作的集大成, 也为学生具体的新闻业务学习提供一个总体的原则和框架。本课程以新闻学概论、新闻采访、新闻写作为前导课程, 为新闻评论、新闻职业伦理等方面课程学习提供基础。

本课程主要讲授融媒时代新闻编辑工作的特性和技能, 包括以下四个板块: 新闻编辑基本理论, 新闻产品定位与设计, 新闻确定与稿件修改, 稿件配置与版面设计。学生需了解在移动互联技术条件下新闻编辑工作的主要流程和新闻编辑人员的基本素养, 理解新闻编辑的基本特性和规律, 掌握新闻产品设计、选题策划、稿件选择、修改、标题制做、专栏策划和稿件配置、图片、图表制作、版面和网页设计等操作技能, 并能灵活运用版面编辑和网页制作软件等。通过学习本课程, 学生学会新闻编辑各项技能, 获得相关新闻知识, 锻炼和提升新闻编辑能力, 育成新闻专业素质和大局意识。

本课程具有很强的实践性, 要求学生广泛阅看、收听和收看各类新闻报道, 并紧密关注当前的媒体整体态势和热点问题的报道方式, 结合课程, 进行相关练习。

Course description: As a specialized core curriculum and compulsory course for the students of Journalism Major, News Editing concern on the characters and skills of news edition under a historic background of Mobile Internet Era. This course consists of the following four parts: basic theory of News Editing , news product positioning and design, news determination and manuscript revision, press release configuration and layout.

编 码: JM05032

Code:JM05032

课程名称: 新闻摄影

Course Title:News Photography

课程类别: 专业核心

Course category:Required Core Course

学 分: 3

Credit(s):3

开课单位: 新闻传播与影视艺术
学院

Offering College/School:College of Journalism
Communication and Film Tv Arts

课程描述: 内容暂缺

Course description: There is no contents at present.



编 码: JM05033**Code:** JM05033**课程名称:** 新闻评论**Course Title:** News Review**课程类别:** 专业核心**Course category:** Required Core Course**学 分:** 3**Credit(s):** 3**开课单位:** 新闻传播与影视艺术
学院**Offering College/School:** College of Journalism
Communication and Film Tv Arts

课程描述: 通过本课程教学,使学生全面了解新闻评论的基本原理与基本知识;熟悉新闻评论写作或制作的基本程序;掌握各类新闻评论的体裁与样式的概念、特点及写作的要求与方法;能够运用新闻评论的基本知识和技能分析新闻评论作品,并为新闻评论拟定和改写标题,进行部分评论体裁(小言论、时评、编者按语、短评、杂文、主持人评论等)的写作或制作。本课程以课堂讲授为主,通过案例教学、课堂讨论和模拟训练等方式完成基本教学,辅之以课内外评论写作或制作练习、作业讲评等方式充实教学内容,巩固教学效果。

Course description: Through Teaching This Course, Undergraduates Can Comprehensively Understand of the Basic Principles and Knowledges of News Comments; and Can Master All Kinds News Comments' Concept, Characteristics and Requirement and Methods of the Genre and style. Undergraduates Are Able to Utilize the News Comment on the Basic Knowledge and skills to Analyze News Comment Works, and Also to Formulate and Rewrite the Titles, to Write Sectional Review Genre (Little Comments, Running Comments, Editor's Comments, the Host Comments etc.). The Course Is Given Priority to With Lectures. Through the Case Teaching, Class Discussion and the Way of simulation Training, Etc the course may Be Completed by the Basic Teaching, and Summpleted by Class Inside and Outside the Comment on Writing, Class Evalution Etc to Enrich the Teaching Contents. Its Goal Is to consolidate the Teaching Effect.

编 码: JM05034	Code:JM05034
课程名称: 数字媒体技术	Course Title:Digital Media Technology
课程类别: 专业核心	Course category:Required Core Course
学 分: 2	Credit(s):2
开课单位: 新闻传播与影视艺术	Offering College/School:College of Journalism Communication and Film Tv Arts

课程描述: 本课程是新闻学专业的专业核心课程,以计算机技术基础为前导课程,为传媒类其他专业课程学习奠定技术基础。本课程主要包括数字媒体的基础理论、数字媒体硬件技术、文本处理技术、图形图像编辑与处理、数字音频与视频处理、计算机动画制作、流媒体技术等内容,学生需深入理解数字媒体技术基础理论,掌握数字媒体信息的基本处理方法,了解数字媒体技术的研究和发展方向,并能灵活运用数字媒体相关技术进行多媒体信息的表达与制作。通过学习本课程,学生学会数字媒体信息的基本设计方法,同时能够使用各种软件工具进行多媒体信息的采集和编辑处理,锻炼和提升利用数字媒体技术进行信息表达的能力。

Course description: Digital Media Technology is one of the key courses for Journalistic Communication major and it is a foundation for the other related courses. Its prerequisite course is Information Technology Fundamentals. The main contents in this course include: the theory in digital media, the hardware technology of digital media, text processing, digital image processing, audio and video processing, animation processing. The primary purpose of this course is to help students to understand the theory of digital media, master the method of digital media information processing and learn the future development direction in digital media technology. By learning this course, the students should grasp the basic method to design digital media content, and be able to make multimedia contents for information presentation using a variety of software.

编 码: JM05035	Code:JM05035
课程名称: 广告文案写作	Course Title:Ad Copy Writing
课程类别: 专业核心	Course category:Required Core Course
学 分: 3	Credit(s):3
开课单位: 新闻传播与影视艺术 学院	Offering College/School:College of Journalism Communication and Film Tv Arts

课程描述: 本课程是广告学专业核心课程, 主要介绍有关广告文案的基础知识以及文案写作的方法。通过梳理广告文案创作的基本原理, 包括在历史和现实中有代表性的创作理论, 拓宽学生的广告文案创意的思路, 使其掌握广告文案的基本构成, 以及各类广告文案的写作技巧, 提高学生将创意转化成文字的能力。在教学中, 通过理论学习、案例分析和写作训练相结合的方法, 使学生能撰写富有创意的报刊杂志广告文案、电视广告文案、广播广告文案, 并能从理论上对广告作品做出专业的评鉴。

Course description: This course is advertising professional core courses, introduces the basic knowledge and methods related to advertising copywriting copywriting. The basic principle of combing through the creation of ad copy, including a representative in the history and reality of creation theory, broaden students' ad copy creative ideas, to master the basic structure of advertising copy, as well as various types of advertising copy writing skills, improve The creative ability of students into the text. In teaching, through the study of theory, case studies and writing method of combining training, to enable students to creative writing newspaper and magazine advertising, television advertising, radio advertising, and advertising work from theory to make professional Evaluation.

编 码: JM05036

Code:JM05036

课程名称: 平面广告设计与制作

Course Title:Print Advertising Design and Production

课程类别: 专业核心

Course category:Required Core Course

学 分: 3

Credit(s):3

开课单位: 新闻传播与影视艺术
学院

Offering College/School:College of Journalism
Communication and Film Tv Arts

课程描述: 《平面广告设计与制作》是广告理论与实践并重的一门课程。其主要内容包括广告设计的构思、表现、制作,研究重点是放在二维平面空间广告的设计构思与表现,平面广告设计的构成要素,广告编排设计以及实践课题的创作。本课程采取课堂讲授与学生实践相结合,通过操作联系实际,加深学生对该课程的理解与掌握。

Course description: Print advertising design and production is advertising pay equal attention to theory and practice of a course. Its main contents include advertising design conception, performance, production; research emphasis is placed on the design and performance of two-dimensional plane space advertising, plane advertisement design elements, advertising layout design and the creation of the practice subject. This course combine classroom teaching and students' practice, through contact the actual operation, deepen students understanding and grasp of the course.

编 码: JM05037

Code:JM05037

课程名称: 数字广告设计与制作

Course Title: Digital Advertising Design and Production

课程类别: 专业核心

Course category: Required Core Course

学 分: 3

Credit(s): 3

开课单位: 新闻传播与影视艺术
学院

Offering College/School: College of Journalism
Communication and Film Tv Arts

课程描述: 本课程全面介绍计算机广告设计的基本原理, 主要流程以及广告业界专用的计算机软件, 并结合经典设计案例, 阐述视频广告、数字音频广告、多媒体广告和网络广告的特点和设计制作方法, 系统解析操作系统中广告设计的制作步骤。本课程共计 80 个课时, 3 个学分, 是广告学专业的核心必修课。期中, 试验课时 32 个, 与理论课同时开设同时结束, 每次 4 节安排在周三北楼非编实验室。

Course description: This course comprehensively introduce the basic principle of computer advertising design, main process and the advertising industry dedicated computer software, and combined with classic design case, video ads, digital audio, multimedia advertising and Internet advertising characteristics and design method, the analytic system operating software, advertising design production steps.

编 码: JM05038	Code:JM05038
课程名称: 广告经营与管理	Course Title:Advertising Operation and Management
课程类别: 专业核心	Course category:Required Core Course
学 分: 2	Credit(s):2
开课单位: 新闻传播与影视艺术 学院	Offering College/School:College of Journalism Communication and Film Tv Arts

课程描述: 这是一门为广告专业学生开设的专业基础课, 通过该课程的教学使学生能够掌握广告经营管理的基本概念、基本理论和基本运作技能, 为学生学习整合相关专业课程建立框架, 主要相关专业课程有广告创意策划、广告心理学、广告史、广告法规、广告媒体等, 使学生能将感性认识与理性认识结合起来, 达到融会贯通的效果。主要内容为广告市场、广告代理公司经营管理、媒介广告经营管理、企业广告经营管理、广告经营流程, 广告经营机制等, 在此在础上进而掌握广告经营的特点、现状、经营方略与发展趋势。课程以最新的经典广告或成功广告为案例, 通过论文的形式考查学生的分析、理解与解决问题的能力, 本课程注重案例教学, 增加案例教学的比重, 文字教材、音像教材均突出典型案例的剖析。

Course description: This is a basic course for majors of advertisng, aiming at the students' mastery of the basic concepts, basic theory and basic operational skills in the erea of advertising operation and management, thus building the framework for their study of courses such as ad creative and planning, advertising psychology, advertising history, advertising regulations, advertising media analysis etc, students can combine the perceptual and rational knowledge to achieve good effect. Main contents include the advertising market, advertising agency management, media advertising management, corporate advertising management, advertising management process, advertising mechanism, on the basis of this ,students should grasp the characteristics of operation, status, business strategy and development trend . Courses take the latest classic advertising or successful advertising as an example, in the form of papers test, students can gain analysis ability and understand problem-solving skills.this course emphasizes on increasing the proportion of case teaching, textbooks examples and audio-visual materials are typical analysis cases.

编 码: JM05039	Code:JM05039
课程名称: 品牌传播与管理	Course Title:Brand Communication and Management
课程类别: 专业核心	Course category:Required Core Course
学 分: 2	Credit(s):2
开课单位: 新闻传播与影视艺术 学院	Offering College/School:College of Journalism Communication and Film Tv Arts

课程描述: 《品牌传播与管理》课程系面向湖南大学新闻传播与影视学院广告学专业学生开设的专业核心课,课程理论性与实践性相结合,使学生能将感性认识与理性认识结合起来,达到融会贯通的效果。主要内容侧重于品牌学相关基础概念、品牌传播管理技术与规律、品牌与市场、企业等相关要素的关系。课程结合较新的经典或成功案例,培养学生的分析、理解与解决问题的能力。本课程注重案例教学,增加案例教学的比重,文字教材、音像教材均突出典型案例的剖析。

Course description: "Brand communication and management" course belongs to professional core courses which aims for advertising major students of Journalism and communication of film and television college in Hunan University, this curriculum combines theory and practice ,and enables students to understand abstract concepts and rational knowledge . The main contents concentrates on the basic concept of brand, brand communication management technology and law, brand and market, enterprise and other related factors. The curriculum combines the new classic or successful cases in order to develop students' ability to analyze, understand and solve problems. This course focuses on case teaching, increasing the proportion of case teaching, writing materials, audio and video materials which are outstanding typical case analysis.

编 码: TF03006

Code:TF03006

课程名称: 美学概论

Course Title:Introduction to Aesthetics

课程类别: 学门核心

Course category:Introductory Major Course

学 分: 2

Credit(s):2

开课单位: 新闻传播与影视艺术
学院

Offering College/School:College of Journalism
Communication and Film Tv Arts

课程描述: 本课程以美学为支点, 观照世界影视的发展, 介绍世界经典影视美学理论, 使学生学会运用美学的视角和方法分析欣赏影视作品和影视现象, 提高学生的审美鉴赏能力。

Course description: There is no contents at present.



编 码: TF03008

Code:TF03008

课程名称: 音乐基础

Course Title:Foundation of Music

课程类别: 学门核心

Course category:Introductory Major Course

学 分: 2

Credit(s):2

开课单位: 新闻传播与影视艺术
学院

Offering College/School:College of Journalism
Communication and Film Tv Arts

课程描述: 本课程作为编导、播音、两个个专业必选的一门专业及初级理论课程。本课程要求学生系统的通过欣赏乐曲,理解和掌握乐音、节奏、各种常用记号、调号、音程、和弦、调式等基本的音乐表现手法;初步了解有关音律、旋律、歌曲结构的基本知识;能正确地掌握和运用简谱、五线谱的记谱,掌握常用的力度、速度及表情术语。同时了解音乐作品及相关文化背景的介绍,对作曲家个人及流派的风格介绍,使学生了解中外在不同历史时期的音乐文化现象,使学生了解中外音乐在历史的发展中的重要事项、人物、作品、思想及相关的人文知识;简要了解中外音乐的发展脉络和规律;培养初步的音乐鉴赏能力。

Course description: There is no contents at present.

编 码: TF03008	Code:TF03008
课程名称: 音乐基础	Course Title:Music foundation
课程类别: 学门核心	Course category:Introductory Major Course
学 分: 2	Credit(s):2
开课单位: 新闻传播与影视艺术	Offering College/School:College of Journalism Communication and Film Tv Arts

课程描述: 本课程作为编导、播音、两个个专业必选的一门专业及初级理论课程。本课程要求学生系统的通过欣赏乐曲,理解和掌握乐音、节奏、各种常用记号、调号、音程、和弦、调式等基本的音乐表现手法;初步了解有关音律、旋律、歌曲结构的基本知识;能正确地掌握和运用简谱、五线谱的记谱,掌握常用的力度、速度及表情术语。同时了解音乐作品及相关文化背景的介绍,对作曲家个人及流派的风格介绍,使学生了解中外在不同历史时期的音乐文化现象,使学生了解中外音乐在历史的发展中的重要事项、人物、作品、思想及相关的人文知识;简要了解中外音乐的发展脉络和规律;培养初步的音乐鉴赏能力。

Course description: There is no contents at present.

编 码: TF03016	Code:TF03016
课程名称: 传播学概论	Course Title:Introduction to communication
课程类别: 学门核心	Course category:Introductory Major Course
学 分: 2	Credit(s):2
开课单位: 新闻传播与影视艺术	Offering College/School:College of Journalism Communication and Film Tv Arts

课程描述: 近年来,我国信息化进程十分迅速,报纸、广播、电视、电影、期刊等传统大众传播媒介的普及程度越来越高,卫星通信、因特网等新的信息传播技术发展日新月异。在信息的接触、收集、处理与传播成为个人、团体、组织最基本工作的今天,传播学成为全社会范围内普及与应用的基础知识。对新闻传播专业的学生而言,更需要熟悉掌握传播学的基本知识。本课程运用辩证唯物主义与历史唯物主义的原理对信息的传播进行科学的阐述与分析,对现代人类社会中的人际传播、群体传播、组织传播、大众传播领域内的主要问题进行较为全面的阐述、分析与输理,从而勾画出传播学的基本理论框架。为学生将来的工作建立一定的理论基础。

Course description: With the rapid development of informationalization in recent years, the conventional mass media in our country, such as newspaper, broadcast, television, movie and periodical, are gaining an increasing popularization. And the new information technologies including satellite communication and Internet are developing with each passing day. Communications has become the popular and basic knowledge for application in today's world when the contact, collection, procession and communication of information has become a daily routine for any individual, company and organization. As far as the students majoring in public relations and in mass media are concerned, it is, therefore, much more necessary to acquire the basic knowledge of communications. The course gives an elaboration and analysis to the communication of information in terms of dialectical materialism and historical materialism; and a comprehensive clarification and classification to the major issues in the fields of inter-personal communication, group communication, organization communication and mass communication carried out in modern human society and goes further to make an outline of the basic theories of communications so as to help students lay certain theoretical base for their future jobs.

编 码: TF03017	Code:TF03017
课程名称: 艺术概论	Course Title:Introduction to Arts
课程类别: 学门核心	Course category:Introductory Major Course
学 分: 3	Credit(s):3
开课单位: 新闻传播与影视艺术 学院	Offering College/School:College of Journalism Communication and Film Tv Arts

课程描述: 本课程是广播电视编导、播音主持、表演专业的学门专业核心课程,以艺术史等为前导课程,为影视艺术理论和实践方面课程学习提供理论基础。

本课程主要包括艺术的本质论、艺术起源论、艺术类型论、艺术创作论、艺术作品论和艺术鉴赏论等内容,学生需了解艺术的起源和不同类型艺术的特点,理解艺术与文化系统中各要素之间的区别与联系,掌握艺术创作的基本过程,并能灵活运用各种艺术鉴赏方法欣赏艺术作品等。通过学习本课程,学生学会分析鉴赏各个门类的艺术精品,获得有关艺术理论知识,锻炼和提升审美能力,丰富学生的人文素养。

本课程是广播电视编导、播音主持、表演专业的学门专业核心课程,以艺术史等为前导课程,为影视艺术理论和实践方面课程学习提供理论基础。

本课程主要包括艺术的本质论、艺术起源论、艺术类型论、艺术创作论、艺术作品论和艺术鉴赏论等内容,学生需了解艺术的起源和不同类型艺术的特点,理解艺术与文化系统中各要素之间的区别与联系,掌握艺术创作的基本过程,并能灵活运用各种艺术鉴赏方法欣赏艺术作品等。通过学习本课程,学生学会分析鉴赏各个门类的艺术精品,获得有关艺术理论知识,锻炼和提升审美能力,丰富学生的人文素养。

Course description: There is no contents at present.

编 码: TF03018

Code:TF03018

课程名称: 中国文学作品选读

Course Title:Selected Reading of Chinese Literature Works

课程类别: 学门核心

Course category:Introductory Major Course

学 分: 3.5

Credit(s):3.5

开课单位: 新闻传播与影视艺术
学院

Offering College/School:College of Journalism
Communication and Film Tv Arts

课程描述: 《中国代文学作品选读》主要通过中国文学基本历史发展与不同体裁作品的的学习, 比较系统地理解中国文学的发展特征与主要作家和作品, 着重理解中国文学代表作品的艺术表现和审美价值, 掌握独立分析不同体裁的中国文学作品艺术特征的基本思路, 提高分析中国文学作品的能力。

Course description: There is no contents at present.



编 码: TF03019 **Code:**TF03019
课程名称: 外国文学作品选读 **Course Title:**Selected Reading of Foreign Literature Works
课程类别: 学门核心 **Course category:**Introductory Major Course
学 分: 2.5 **Credit(s):**2.5
开课单位: 新闻传播与影视艺术 **Offering College/School:**College of Journalism
学院 Communication and Film Tv Arts

课程描述: 《外国文学作品选读》是艺术类专业的核心课程。作为一门名著名篇选读性质的课程,教学的重点是对作品进行解读和分析。所选作品是东西方文学中各种流派与重要作家作品,其中有诗歌、戏剧、小说等体裁。它们是经典中的经典,杰作中的杰作。通过这门课程的学习,旨在提高同学们对外国文学作品分析阅读能力,并让他们获得智性的愉悦与美的享受。

Course description: <Selected readings of foreign literature> is a core curriculum of art major students. As a course of reading selected master pieces, it focus on specific works. The selected works are written by various genres in eastern and western literature and important writers, including poetry, drama fiction genre etc.They are classics and masterpieces.This course aims at improving the students' reading skills of foreign literature,and letting them to get intelligence and aesthetic pleasure.

编 码: TF03020

Code:TF03020

课程名称: 文化概论

Course Title:Introduction to Culture

课程类别: 学门核心

Course category:Introductory Major Course

学 分: 2

Credit(s):2

开课单位: 新闻传播与影视艺术
学院

Offering College/School:College of Journalism
Communication and Film Tv Arts

课程描述: 内容暂缺

Course description: There is no contents at present.



编 码: TF03021

Code:TF03021

课程名称: 传播伦理与法规

Course Title: Ethics and Law of Communication

课程类别: 学门核心

Course category: Introductory Major Course

学 分: 2

Credit(s): 2

开课单位: 新闻传播与影视艺术
学院

Offering College/School: College of Journalism
Communication and Film Tv Arts

课程描述: 这是为新闻学、广告学专业本科生开设的一门专业核心课。本课程通过讲授新闻传播伦理和法律法规的基本知识以及传播领域经常出现的相关问题、冲突与选择, 加深学生对媒体伦理和媒体法理论和实践的认识与思考, 培养学生系统分析媒体伦理道德和媒体法问题的能力, 以便在未来的职业生涯中自信而有效地面对和适应现实的挑战。

Course description: Ethics and Law of Journalism is a required course for undergraduates majoring in Journalism and Advertising. The course focuses on the basic principles of journalistic ethics and development of journalism law in China and other countries. The course gives high attention on case studies in related areas as well in order to enlighten the students in journalism practice. It is hoped that student can face the challenge more confidently and morally in their future careers.

编 码: TF04008	Code:TF04008
课程名称: 广播电视概论	Course Title:Introduction to Broadcasting and Television
课程类别: 学类核心	Course category:Major Survey Course
学 分: 3	Credit(s):3
开课单位: 新闻传播与影视艺术	Offering College/School:College of Journalism Communication and Film Tv Arts

课程描述: 《广播电视概论》课程主要研究广播电视两大传播媒介产生、发展的规律和广播电视业务知识及工作方法。要求正确认识广播电视特性,认识广播电视的传播规律和工作原则,了解中国广播电视发展的历史和现状,了解当今世界广播电视发展的趋势,熟悉广播电视的业务知识和工作方法,从而使广播电视编导专业学生具备一定的分析、研究能力和业务能力。

Course description: Radio and Television Introduction mainly taught the law of radio &TV production and development and the radio and television business knowledge and working methods. The course required students to understand radio and television features, and working principles of propagation of radio and television. The course taught history and current status of the development of China's radio and television, and the radio and television development trend in world nowadays. So that the course make the radio and television majors having some capacity of analysis, research and operational.

编 码: TF04009	Code:TF04009
课程名称: 基础摄影	Course Title:Fundamental Photography
课程类别: 学类核心	Course category:Major Survey Course
学 分: 3	Credit(s):3
开课单位: 新闻传播与影视艺术 学院	Offering College/School:College of Journalism Communication and Film Tv Arts

课程描述: 本课程的主要内容是帮助学生了解中外摄影史, 对学生进行摄影基本原理教育, 了解摄影特性。熟练掌握各类摄影器材的使用和摄影创作规律, 以及不同题材的表现方法。要求学生认真选读指定的有关书籍和观摩中外优秀摄影作品, 按要求进行各单元摄影实验, 独立完成规定的作业和进行摄影创作实践。

Course description: The main content of this course is to help students understand the history of photography, the basic principle of photography in student education, understanding the photographic properties. Studying all kinds of photographic skill and photographic creation rules.Meantime,learning the expression method of different subjects.Students are required to read the specified related books and to inspect the excellent photography, photography experiment, each unit in accordance with requirements specified independently work and photography creation practice.

编 码: TF04010

Code:TF04010

课程名称: 演讲与论辩

Course Title:Public Speaking and Debating

课程类别: 学类核心

Course category:Major Survey Course

学 分: 2

Credit(s):2

开课单位: 新闻传播与影视艺术
学院

Offering College/School:College of Journalism
Communication and Film Tv Arts

课程描述: 演讲与论辩是在理论指导下培养学生演讲、论辩与口才能力, 提高口语表达水平的实践性很强的技能课, 是播音员主持人、编导、表演专业的学类核心课。该课程旨在培养学生的演讲、论辩与口才能力, 提高学生的口头表达水平, 是一门应用性很强的学科。

Course description: Speech and debate is to train students in the theoretical guidance speech, debate and eloquence ability to raise the level of oral skills very practical lesson is announcer, director, performing professional school core curriculum classes. The course aims to develop students 'speech, debate and eloquence ability to improve students' oral expression levels, is an application of a strong discipline.

编 码: TF04011	Code:TF04011
课程名称: 视听语言	Course Title:Audio-visual Language
课程类别: 学类核心	Course category:Major Survey Course
学 分: 3	Credit(s):3
开课单位: 新闻传播与影视艺术 学院	Offering College/School:College of Journalism Communication and Film Tv Arts

课程描述: 《视听语言》既是影视艺术专业入门课程,也是专业最为核心的课程之一。对于学习影视艺术专业的学生,在长时间建立起的文字语言思维之上,建立视觉语言和听觉语言的思维方式,对从事影视创作工作至关重要。

《视听语言》课程主要包括“视觉语言”和“听觉语言”两个部分,涉及到影像的基本概念、画面框架、拍摄角度与景别、镜头焦距、运动与静止、光线与色彩、场面调度、声音的概念与内容。声音与画面的关系、画面与声音的剪辑。

通过学习《视听语言》课程,学生将会建立全新的视听思维方式,运用镜头语言和声音语言来表达、传递对主客观世界的认识。对视听语言掌握的成熟度,将决定影视作品的艺术表达。

Course description: There is no contents at present.

编 码: TF04012	Code:TF04012
课程名称: 电视编导概论	Course Title:Introduction to Television Writing and Directing
课程类别: 学类核心	Course category:Major Survey Course
学 分: 3	Credit(s):3
开课单位: 新闻传播与影视艺术 学院	Offering College/School:College of Journalism Communication and Film Tv Arts

课程描述: 《广播电视编导概论》课程是编导专业学生的专业核心课程, 教导学生从理论层面了解电视编导专业知识, 掌握电视编导工作的基本程序, 从总体对把握本专业知识结构、业务能力、职业规范、评价体系等方面。使学生在学习中切实掌握编导实践能力, 能够进行取材、选题、拍摄、剪辑、录音等方面操作, 可以制作具有一定水平的作品。培养学生的文本阅读能力, 对电视编导方面的优秀文本案例能够进行分析, 从而稳定提高。

Course description: The course of Generality of TV editor and director is the core professional course. We'll teach students to study the professional theory knowledge, to grasp the professional work procedure and students will understand the knowledge structure, professional ability, work regulations, value system, etc. Students will grasp practice ability to draw materials, to select topic, to take picture, to edit shot, to record. We'll train reading ability to make students analysis excellent case and step by step to average up.

编 码: TF04013	Code:TF04013
课程名称: 中外广播电视史	Course Title:History of Chinese and Foreign Broadcasting and
课程类别: 学类核心	Television
学 分: 3	Course category:Major Survey Course
开课单位: 新闻传播与影视艺术	Credit(s):3
学院	Offering College/School:College of Journalism Communication and Film Tv Arts

课程描述: 这是一门以广播电视编导专业学生为教学对象、以世界和中国广播电视事业的发展经验为教学内容的史论性课程。通过本课程的学习,使学生了解中外广播电视产生与发展的历史;分析各种不同的广播电视体制对广播电视本质的影响;研究中外典型的广播电视节目形态,探讨其规律及发展特点;并要求能够结合国外广播电视事业的经验,对中国的广播电视发展提出自己的看法和见解。主要内容为:“外国广播电视事业”和“中国广播电视事业”上下两篇。上篇从广播电视的科技进步、体制发展及未来趋势等方面作了宏观阐述,并对主要国家的广播电视事业作了深入的梳理贯通。下篇则“以时为经,以事为纬”,融史料和论述于一体,构筑了中国本土的广播电视事业发展状况的完备框架。

Course description: This is a historical theory course for the students studying the writing and directing of radio and TV, aiming at the students' knowing of the history of coming into being and developing of foreign and Chinese radio and TV, and mastery of the developmental experience of Chinese and foreign radio and TV, and the development of their analyzing and solving various problems' abilities in Chinese reforming and developing about radio and TV. The contents of the course include two big parts: Foreign Radio and TV, Chinese Radio and TV. The first part includes four sections: the scientific and technological progress of radio and TV, the systematic development of radio and TV, future trends of radio and TV, and the experience of British and American radio and TV. The second part includes two sections: the three developing stages and the programs' evolving of radio and TV in Main Continent, and the main situation of radio and TV in Taiwan, Hong Kong and Macao.

编 码: TF04014	Code:TF04014
课程名称: 导演基础	Course Title:Foundation of Directing
课程类别: 学类核心	Course category:Major Survey Course
学 分: 3	Credit(s):3
开课单位: 新闻传播与影视艺术学院	Offering College/School:College of Journalism Communication and Film Tv Arts

课程描述: 我们所学的“语文”，是运用语言与文字实现人与人之间的沟通交流；而影视导演则是运用视听复合手段来“讲述”故事：镜头与镜头组成视听语句、语句与语句形成叙事段落、段落与段落则构成一部完整的影片：叙事、抒情、写意……

《影视导演基础》教程依据中国传媒大学出版发行的《从文学创作到视听表达》(王静著)教材一书以及参考书《电影语言》(马赛尔·马尔丹著)《电影通史》(乔治·萨杜尔著)艺术形式的综合性、反应客观世界的逼真性以及蒙太奇是其独特的表现手段构成影视艺术三大特性；影视艺术是时间艺术与空间艺术的复合体，它既象时间艺术那样，在延续时间中展示（空间）画面，构成完整的银幕形象，又象空间艺术那样，在画面空间上展现形象的魅力，使作品获得多手段、多方式的表现力。

Course description: What we learn "Chinese", is the use of language and text to achieve the communication between people exchanges; and film and television director is the use of audiovisual composite means to "tell" the story: the lens and the lens composed of audio-visual statement,statement and statement form narrative passages, paragraphs and paragraphs constitute a complete film narrative, Lyric:, freehand brushwork.....

"Film director based tutorial basis" of Communication University of China published "from literature creation to audiovisual expression" (Wang Jing) a book and reference book"language" (Marcel Martin movie with "general history") film (George Sadoul), the reaction ofcomprehensive art form of the objective world and verisimilitude montage is film and TV artthree characteristics constitute its unique means of expression; visual arts is a complex time art and space art, it is like a time art, displayed in the continuation of time (space) screen,constitute a complete screen image, and image space art, to show the image in the screenspace charm, so that works get more means, much in the way of expression.

编 码: TF04015	Code:TF04015
课程名称: 网络与新媒体概论	Course Title:Introduction to Network and New Media
课程类别: 学类核心	Course category:Major Survey Course
学 分: 2	Credit(s):2
开课单位: 新闻传播与影视艺术 学院	Offering College/School:College of Journalism Communication and Film Tv Arts

课程描述: 网络与新媒体概论是为新闻学专业和广告学专业学生开设的专业核心课程, 以传播学概论为前导课程, 为新媒体方面的课程提供基础。本课程主要包括网络与新媒体概述、新媒体类型、新媒体技术变革、新媒体与新闻传播、新媒体与政治和新媒体与经济等内容。学生需要掌握新媒体的基本概念、主要类型和相关理论, 并能灵活分析新媒体崛起对新闻传播、政治和经济所形成的重大影响。通过学习本课程, 学生学会新媒体的发展历史和趋势走向, 获得了分析和解决新媒体领域内实际问题的能力。

Course description: The Introduction to Internet and New Media is a core course for students majoring in journalism and advertising, with the introduction of communication as the leading course, which provides the basis for the new media courses. This course includes an overview of the Internet and new media, new media types, new media technology changes, new media and politics, new media and economy. Students need to grasp the basic concepts, main types and related theories of new media, and to analyze the impact of the rise of new media on the formation of journalism, politics and economy. Through the study of this course, the students learn the development of new media and trends, to obtain the ability to analyze and solve practical problems in the field of new media.

编 码: TF04016 **Code:**TF04016
课程名称: 广播电视作品评析 **Course Title:**Analysis on Broadcasting and Television Works
课程类别: 学类核心 **Course category:**Major Survey Course
学 分: 3 **Credit(s):**3
开课单位: 新闻传播与影视艺术学院 **Offering College/School:**College of Journalism Communication and Film Tv Arts

课程描述: 《广播电视作品评析》课程主要阐述评析广播电视作品的基本规则，并逐一阐明评析广播和各种电视作品的理论与方法，论述广播电视作品评析文章的写作要诀，选取了经典的广播电视作品案例进行评析。正确评析广播电视作品是一种大众文化通用能力，更是广播电视编导专业学生必备的专业基本功。

Course description: The Analysis and Appreciation of Radio& TV Works mainly elaborates the basic rules of radio and TV works, review and clarify each and a variety of theories and methods of broadcast and TV works. Course selected classic radio and TV works case to comment. Comments on radio and TV works properly is a general ability of popular culture, and also is the basic professional skill of students major in radio and TV directing & editing.

编 码: TF04017

Code:TF04017

课程名称: 广播电视新闻

Course Title:Broadcasting and Television News

课程类别: 学类核心

Course category:Major Survey Course

学 分: 3

Credit(s):3

开课单位: 新闻传播与影视艺术
学院

Offering College/School:College of Journalism
Communication and Film Tv Arts

课程描述: 本课程是播音与主持艺术、广播电视编导专业的学类核心课,以广播电视概论、新闻学概论为前导课程。本课程主要包括广播电视新闻的体裁、类别、采访、编排等方面的内容。通过对该课程的学习,有助于学生了解和掌握广播电视新闻的特点和规律,能识别各种不同类型的广播新闻体裁及类别,能够独立地从事广播电视新闻的采访、写作和编排,熟悉广播电视采制的流程,具备一定的新闻素养,为今后从事广播电视新闻工作打下基础。

Course description: There is no contents at present.



编 码: TF04018

Code:TF04018

课程名称: 现代汉语

Course Title:Modern Chinese

课程类别: 学类核心

Course category:Major Survey Course

学 分: 2

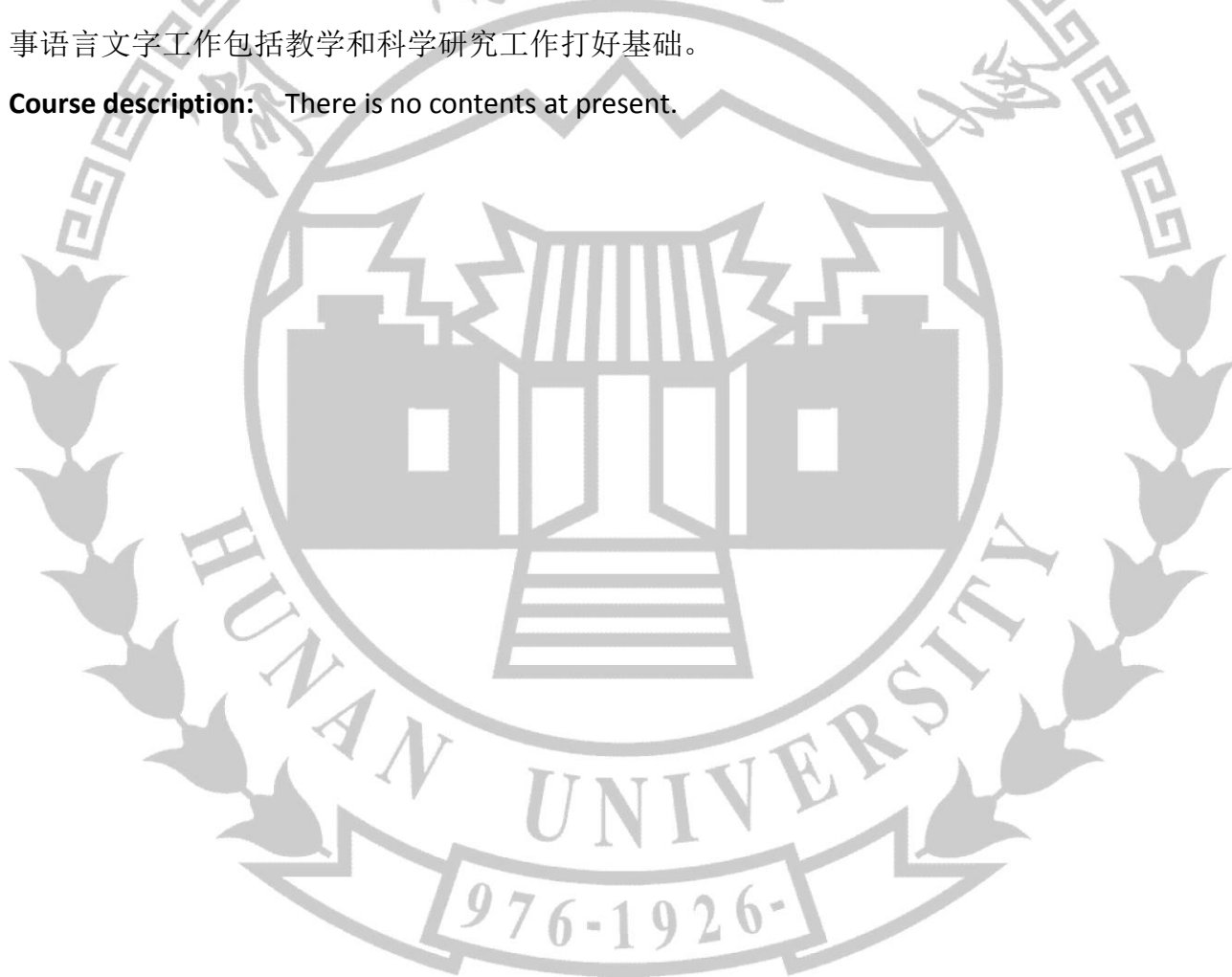
Credit(s):2

开课单位: 新闻传播与影视艺术
学院

Offering College/School:College of Journalism
Communication and Film Tv Arts

课程描述: 本课程是高等院校汉语言文学专业的基础。它以马克思主义理论为指导,以国家的语言文字政策为依据,系统地讲授现代汉民族共同语——普通话——的基础理论和基本知识,训练基本技能,培养和提高学生理解、分析和运用现代汉民族的能力,为他们将来从事语言文字工作包括教学和科学研究工作打好基础。

Course description: There is no contents at present.



编 码: TF05025	Code:TF05025
课程名称: 广播编辑	Course Title:Broadcasting Editor
课程类别: 专业核心	Course category:Required Core Course
学 分: 3	Credit(s):3
开课单位: 新闻传播与影视艺术	Offering College/School:College of Journalism Communication and Film Tv Arts

课程描述: 《广播电视编辑》是广播电视艺术学专业必修的一门核心课程, 主要研究广播的声音语言、电视的画面语言、广播电视的编辑思维方式以及广播电视传播中的语法规律、原则规范、组接技巧和声音运用。本课程分为上下两部分, 覆盖学生大学二年级的整个学年。课程设计旨在使学生通过系统的广播电视编辑理论的课程学习和声音画面剪辑的实践训练, 对广播电视节目的采、编、设计与制作等业务工作的一般方法熟练掌握, 并为学习其他课程及课程实习打下良好的技术与艺术基础。

Course description: “Radio and TV editing”is a compulsory core courses of professional radio and TV art. It’s mainly research broadcast voice language, TV picture language, the way of thinking in radio and TV editing, the grammatical rules, and the principles of TV transmission, techniques and using sound. This course is divided into two parts, covering the second grade students of the University in the academic year. Curriculum design aims to enable students to screen system of radio and television editing theory courses and sound editing practice, the general method of production, editing, design and manufacture of professional work of radio and TV programs of the master, and to learn other courses and curriculum practice lay a good technical and artistic foundation.

编 码: TF05030

Code:TF05030

课程名称: 电视摄像

Course Title:Television Photography

课程类别: 专业核心

Course category:Required Core Course

学 分: 3

Credit(s):3

开课单位: 新闻传播与影视艺术
学院

Offering College/School:College of Journalism
Communication and Film Tv Arts

课程描述: 《电视摄像》是影视艺术专业的核心课程。在影视制作全过程中, 摄像是前期制作的核心部分, 负责影视作品视觉内容的获取。

《电视摄像》包括以下内容: 电视画面、摄像基础知识、电视画面的造型语言、光学镜头、固定画面、运动画面、光线与色彩的造型、电视场面调度、电视新闻纪实拍摄、电视剧情拍摄。

通过本课程的学习, 学生在前期对视听语言的初步认知基础上, 能够娴熟拍摄常见类型的电视节目。

Course description: There is no contents at present.

编 码: TF05031

Code:TF05031

课程名称: 电视纪录片创作

Course Title:TV Documentary Creation

课程类别: 专业核心

Course category:Required Core Course

学 分: 3

Credit(s):3

开课单位: 新闻传播与影视艺术
学院

Offering College/School:College of Journalism
Communication and Film Tv Arts

课程描述: 这是为广播电视编导（广播电视新闻学、摄影等）专业的高年级本科生开设的一门专业核心课程，帮助学生学习纪录片的基本概念、理论以及美学、批评原则，进而，着力于培养学生的实践能力和创新能力。

Course description: There is no contents at present.



编 码: TF05032 **Code:**TF05032
课程名称: 电视艺术片创作 **Course Title:**TV Art Film Creation
课程类别: 专业核心 **Course category:**Required Core Course
学 分: 3 **Credit(s):**3
开课单位: 新闻传播与影视艺术 **Offering College/School:**College of Journalism
学院 Communication and Film Tv Arts

课程描述: 本课程是广播电视编导专业的专业核心课程,以《视听语言》与《电视综艺节目创作》为前导课程,为电视编导创作方面的课程学习提供实践创作技能。本课程主要包括电视艺术片概述、电视风光与电视风情艺术片、电视专题艺术片与电视民俗艺术片、电视艺术片的语言系统与思维方式等内容,学生需要了解电视艺术片的风格流派,理解电视艺术片创作的审美特征,掌握电视艺术片创作的 language 系统与思维方式,并能灵活运用电视艺术片创作的技能与技巧。通过学习本课程,学生学会选择合适的艺术片选题,获得艺术片拍摄的经验,锻炼与提升动手操作的能力与审美品格。

Course description: There is no contents at present.

编 码: TF05036

Code:TF05036

课程名称: 广播电视节目策划

Course Title:Broadcasting and Television Program Planning

课程类别: 专业核心

Course category:Required Core Course

学 分: 3

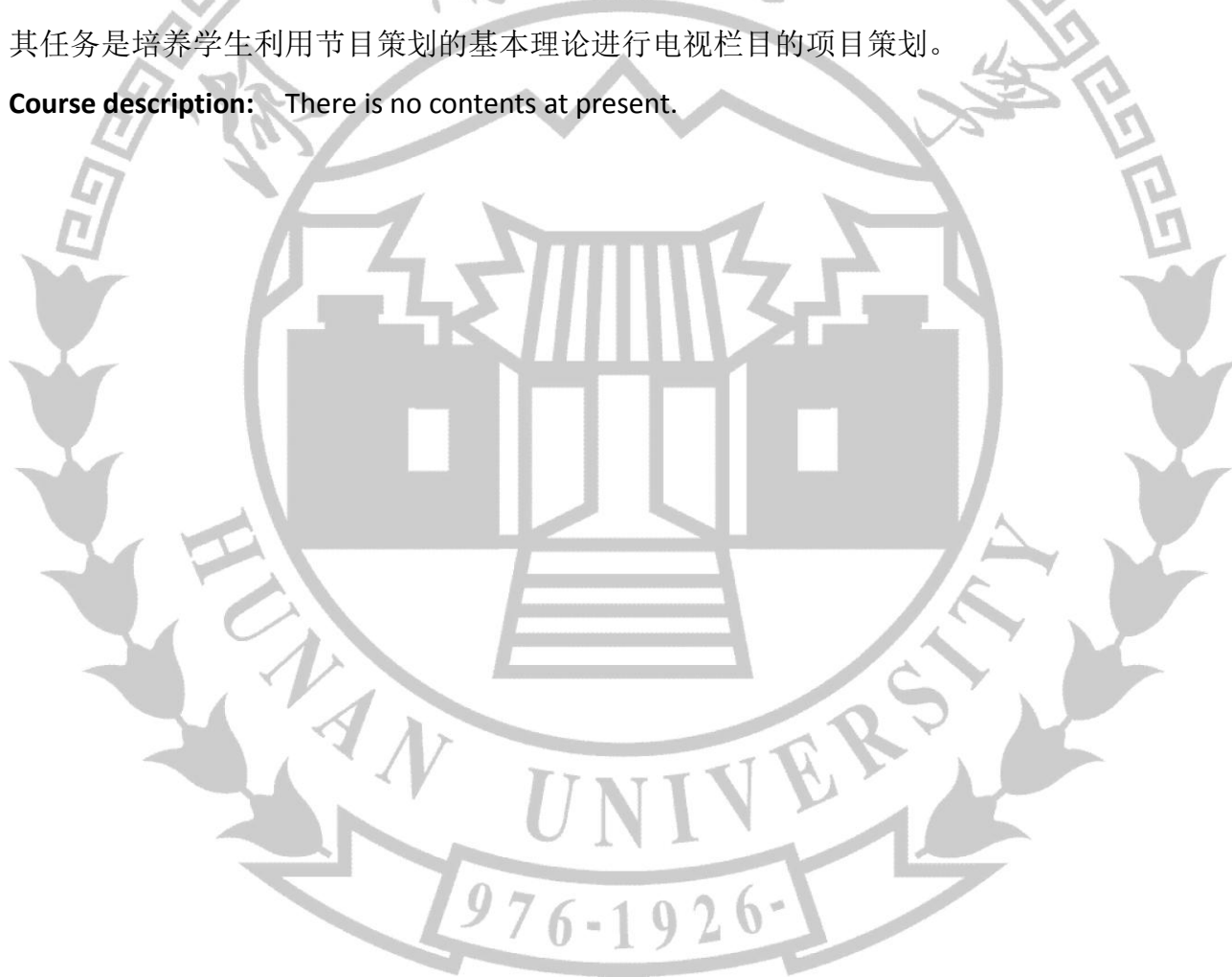
Credit(s):3

开课单位: 新闻传播与影视艺术
学院

Offering College/School:College of Journalism
Communication and Film Tv Arts

课程描述: 《广播电视节目策划》是新闻与传媒系广播电视编导专业学生的学位课程, 它主要以介绍电视策划的内涵、外延、方法、对策、层次、观念等内容, 以电视新闻节目策划、电视谈话节目策划、电视综艺娱乐节目策划、电视节目主持人策划等为主要内容进行讲解。其任务是培养学生利用节目策划的基本理论进行电视栏目的项目策划。

Course description: There is no contents at present.



编 码: TF05055

Code:TF05055

课程名称: 播音导论

Course Title:Introduction to Broadcasting

课程类别: 专业核心

Course category:Required Core Course

学 分: 2

Credit(s):2

开课单位: 新闻传播与影视艺术
学院

Offering College/School:College of Journalism
Communication and Film Tv Arts

课程描述: 播音导论是中国播音学的重要组成部分,是研究广播电视播音与主持发生发展一般规律的学科,是高等学校播音与主持专业的一门专业基础课和理论课。开设本课程,旨在使学生通过学习,掌握播音导论的基本观点,为学习其他专业课程打下良好的理论基础,为日后进入播音界从事播音工作做好理论准备。

Course description: There is no contents at present.



编 码: TF05056

Code:TF05056

课程名称: 普通话语音

Course Title:Pronunciation of Mandarin

课程类别: 专业核心

Course category:Required Core Course

学 分: 2

Credit(s):2

开课单位: 新闻传播与影视艺术
学院

Offering College/School:College of Journalism
Communication and Film Tv Arts

课程描述: 《普通话语音》是播音与主持艺术专业的必修专业核心课,也是专业学习的启蒙课。主要解决的是播音、主持创作的“硬件”问题,同时又将贯穿播音、主持创作的全过程,并从一个侧面体现播音员、节目主持人的专业素质。开设本课程,旨在使学生通过学习,系统地了解普通话语音体系,掌握普通话语音发音的基本规律和特点,能运用普通话语音发音技巧,改进不正确的语音和不好的语音习惯,从而达到播音员、主持人必须具备的普通话语音水平。

Course description: There is no contents at present.

编 码: TF05060

Code:TF05060

课程名称: 新闻播音

Course Title:News Broadcasting

课程类别: 专业核心

Course category:Required Core Course

学 分: 3

Credit(s):3

开课单位: 新闻传播与影视艺术
学院

Offering College/School:College of Journalism
Communication and Film Tv Arts

课程描述: 内容暂缺

Course description: There is no contents at present.



编 码: TF05062

Code:TF05062

课程名称: 文艺作品演播

Course Title:Literature Works Performing and Broadcasting

课程类别: 专业核心

Course category:Required Core Course

学 分: 3

Credit(s):3

开课单位: 新闻传播与影视艺术
学院

Offering College/School:College of Journalism
Communication and Film Tv Arts

课程描述: 本课程是播音主持艺术专业的核心课。它教授学生如何分析和演播不同类型的文艺作品。本课程包括诗歌朗诵、散文朗诵、寓言和童话演播、小说演播、广播剧演播以及影视配音等内容。

Course description: There is no contents at present.



编 码: TF05065

Code:TF05065

课程名称: 电视节目主持(一)

Course Title:TV Show Host (I)

课程类别: 专业核心

Course category:Required Core Course

学 分: 2

Credit(s):2

开课单位: 新闻传播与影视艺术
学院

Offering College/School:College of Journalism
Communication and Film Tv Arts

课程描述: 本课程是播音与主持艺术专业的必修专业核心课程,以语音发声、播音创作基础、新闻播音、文艺作品演播、广播节目主持等为前导课程,属于实训课程。学习电视节目主持相关理论,掌握电视节目主持基本技能、技巧。

Course description: There is no contents at present.



编 码: TF05066

Code:TF05066

课程名称: 电视节目主持(二)

Course Title:TV Show Host (II)

课程类别: 专业核心

Course category:Required Core Course

学 分: 2

Credit(s):2

开课单位: 新闻传播与影视艺术
学院

Offering College/School:College of Journalism
Communication and Film Tv Arts

课程描述: 本课程是播音与主持艺术专业的必修专业核心课程, 以电视节目主持(一)为前导课程, 属于实训课程。通过项目化教学和实务训练, 学习各类电视节目主持技能、技巧, 提升和夯实整体专业能力。

Course description: There is no contents at present.



编 码: TF05070	Code:TF05070
课程名称: 电视综艺节目制作	Course Title:Production of TV Variety Shows
课程类别: 专业核心	Course category:Required Core Course
学 分: 2	Credit(s):2
开课单位: 新闻传播与影视艺术学院	Offering College/School:College of Journalism Communication and Film Tv Arts

课程描述: 电视综艺节目制作是广播电视编导创作的重要组成部分。作为电视创作的编导,把握综艺节目的创作类型、创作手法与审美特征是极其重要的。本课程对电视综艺节目制作的基本理论知识进行系统的梳理,电视综艺节目的基本视听手段分类界定,对综艺栏目与综艺晚会的制作技巧进行系统训练,完成综艺节目制作的创造性实践。在各种电视创作元素的交叉融合的背景下,提出了电视文艺节目的发展趋势和相应的应对方法,总结了新世纪以来新的文艺节目形态。

Course description: Tv program production is an important part of television and broadcasting creation. As television creative director, creative types, creation and aesthetic characteristics of grasp the variety show is very important. This course on the TV variety show produced by the basic theoretical knowledge systematically, the basic classification of audio-visual means TV variety show definition, production skills on variety programs and the variety show systematic training, complete the creative practice of variety show producer. In the cross combination of various television creation element background, puts forward the development trend of TV entertainment programs and corresponding method, summarizes the new literary program form since the beginning of the new century.

编 码: TF05071

Code:TF05071

课程名称: 网络编辑

Course Title:Web Editor

课程类别: 专业核心

Course category:Required Core Course

学 分: 2

Credit(s):2

开课单位: 新闻传播与影视艺术
学院Offering College/School:College of Journalism
Communication and Film Tv Arts

课程描述: 《网络编辑》是广播电视编导专业必修的一门核心课程, 主要研究网络媒体的传播特性、媒介特性、网络中的信息编辑与传播、网络传播的全新技术、网络传播中的文化现象、网络数据使用以及网页编辑语言。在系统的讲述网络媒体信息编辑与传播的基本方式和技术技巧的基础之上, 突出实践操作性, 结合新媒体时代网络传播的特性, 规范化的总结网络编辑的一般性技巧与特殊性原则, 注重对 DHTML 语言的学习, 强调数据对于网络信息编辑的意义与价值。本课程立足于新媒体时代, 从网络媒体入手全面学习以互联网为平台的媒介信息编辑与传播的技巧。

Course description: There is no contents at present.

编 码: TF05072	Code:TF05072
课程名称: 电视编辑	Course Title:TV Editor
课程类别: 专业核心	Course category:Required Core Course
学 分: 3	Credit(s):3
开课单位: 新闻传播与影视艺术	Offering College/School:College of Journalism Communication and Film Tv Arts

课程描述: 《广播电视编辑》是广播电视艺术学专业必修的一门核心课程, 主要研究广播的声音语言、电视的画面语言、广播电视的编辑思维方式以及广播电视传播中的语法规律、原则规范、组接技巧和声音运用。本课程分为上下两部分, 覆盖学生大学二年级的整个学年。课程设计旨在使学生通过系统的广播电视编辑理论的课程学习和声音画面剪辑的实践训练, 对广播电视节目的采、编、设计与制作等业务工作的一般方法熟练掌握, 并为学习其他课程及课程实习打下良好的技术与艺术基础。

Course description: “Radio and TV editing” is a compulsory core courses of professional radio and TV art. It’s mainly research broadcast voice language, TV picture language, the way of thinking in radio and TV editing, the grammatical rules, and the principles of TV transmission, techniques and using sound. This course is divided into two parts, covering the second grade students of the University in the academic year. Curriculum design aims to enable students to screen system of radio and television editing theory courses and sound editing practice, the general method of production, editing, design and manufacture of professional work of radio and TV programs of the master, and to learn other courses and curriculum practice lay a good technical and artistic foundation.

编 码: TF05073

Code:TF05073

课程名称: 播音发声

Course Title:Sound in Broadcasting

课程类别: 专业核心

Course category:Required Core Course

学 分: 2

Credit(s):2

开课单位: 新闻传播与影视艺术
学院

Offering College/School:College of Journalism
Communication and Film Tv Arts

课程描述: 播音发声是播音与主持艺术专业的主干专业基础课, 是培养合格的播音员、节目主持人的必修课。通过讲授及有针对性的训练, 应使学生较系统地掌握播音发声学的理论知识, 逐渐掌握、运用科学的发声方法, 以适应接下来语言表达基础学习的需要。

Course description: There is no contents at present.



编 码: TF05074

Code:TF05074

课程名称: 播音创作基础

Course Title:Foundation of Broadcasting Creativity

课程类别: 专业核心

Course category:Required Core Course

学 分: 3

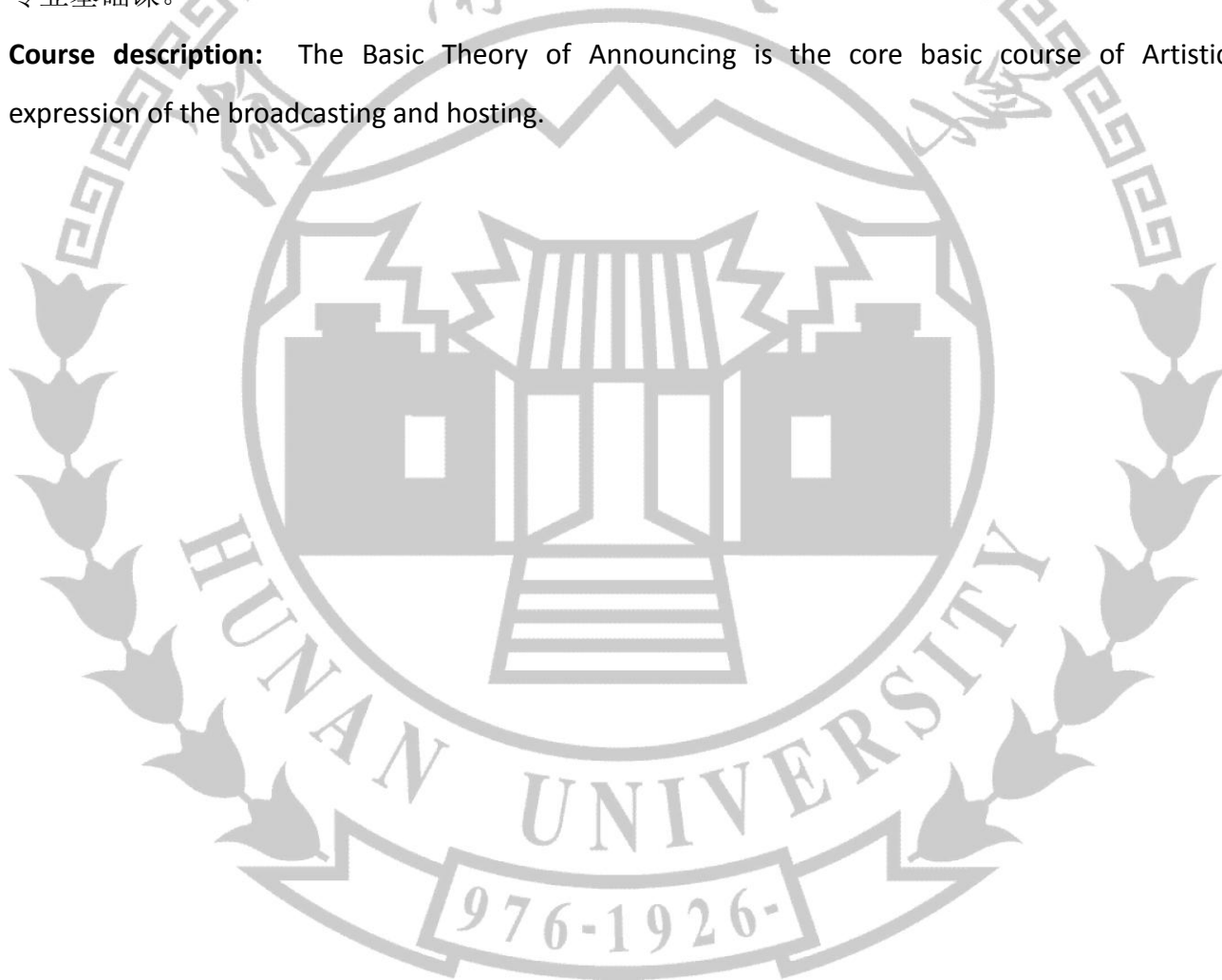
Credit(s):3

开课单位: 新闻传播与影视艺术
学院

Offering College/School:College of Journalism
Communication and Film Tv Arts

课程描述: “播音创作基础理论”课程是播音主持艺术语言表达的基础理论,着重研究从稿件和话题内容准备到实际播出这个过程中基础性的理论问题,是播音专业本科学生的主干专业基础课。

Course description: The Basic Theory of Announcing is the core basic course of Artistic expression of the broadcasting and hosting.



编 码: TF05076

Code:TF05076

课程名称: 广播节目主持

Course Title:Broadcasting Show Host

课程类别: 专业核心

Course category:Required Core Course

学 分: 3

Credit(s):3

开课单位: 新闻传播与影视艺术
学院

Offering College/School:College of Journalism
Communication and Film Tv Arts

课程描述: 本课程是播音主持艺术专业的核心课。它教授学生如何在广播媒体, 面对不同体裁的稿件、不同形式的作品都能用相应的语体表达出来, 达到广播电台播音主持工作的实战要求。教学内容包括新闻节目主持、综艺娱乐节目主持、读书节目主持、音乐节目主持、谈心节目主持、服务类节目主持等。

Course description: There is no contents at present.



编 码: CL03001	Code:CL03001
课程名称: 写作学概论	Course Title:Introduction to Writing
课程类别: 学门核心	Course category:Introductory Major Course
学 分: 3	Credit(s):3
开课单位: 中国语言文学学	Offering College/School:College of Chinese Language and Literature
院	

课程描述: 《写作学概论》属于汉语言文学专业的专业核心课。本课程以传授写作基础理论为主, 辅以课外实践训练, 通过对写作课的性质、特征以及写作活动过程等多重因素的考察, 建立起对写作理论的整体认识。理论性、实践性、综合性相结合, 是本门课程的特点。

Course description: Introduction Of Writing is a Professional course of Chinese language and literature.The curriculum to teach basic writing theory based, supplemented by the extracurricular practice training, through the study of multiple factors of nature, writing features and writing process, establish the overall understanding of writing theory. Theoretical, practical, comprehensive combination, is characteristic of this course.

编 码: CL03002**Code:**CL03002**课程名称:** 语言学概论**Course Title:**Introduction to Linguistics**课程类别:** 学门核心**Course category:**Introductory Major Course**学 分:** 3**Credit(s):**3**开课单位:** 中国语言文学学院**Offering College/School:**College of Chinese Language and Literature

课程描述: 《语言学概论》是高等院校汉语言文学专业的一门专业主干课。它从理论上探讨人类语言的本质、结构和演变规律等。本课程主要内容包括: 语言的起源, 语言中语音、词汇、语法等子系统原理、语言的发展、语言的接触、语言系统的发展等, 学生需更广泛地了解世界语言现象, 理解语言规律, 掌握语言原理, 并能灵活运用语言理论来分析语言问题。通过学习本课程, 学生学会抽象的方法, 获得较高层次的语言分析能力, 锻炼和提升审视语言和运用语言的能力。

Course description: "Introduction to Linguistics" is a core course for students whose major is Chinese Languages and Literature. Based on Modern Chinese and Ancient Chinese, two of them are the prerequisite courses for students. Theoretically, this course will explore the nature of human language, the structure of languages and the evolution pattern of languages etc. Besides, this course provides a fundamental and theoretical understanding of linguistic courses such as the history of linguistics. Topics include: the origin of languages, sound system, word formation, syntax, and the development of languages, language contact, the development of language system. Students will achieve a theory-based and informed understanding of language phenomena in the world, and they will develop sensitivity towards language patterns and regularities and use. Moreover, students will be able to approach a linguistic problem with the language theory. Through attending this course, students will be familiar with methodological tools used in the analysis of language form. Meanwhile, students will be equipped with a higher level of language analyzing abilities, and are able to have a good command of language use.

编 码: CL03003**Code:**CL03003**课程名称:** 文学概论**Course Title:**Introduction to Literature**课程类别:** 学门核心**Course category:**Introductory Major Course**学 分:** 4**Credit(s):**4**开课单位:** 中国语言文学学院**Offering College/School:**College of Chinese Language and Literature

课程描述: 《文学概论》是汉语言文学专业的一门必修的基础课,为本院学门核心课。课程内容包括文学理论的性质、文学活动、文学生产、文学产品、文学消费与接受等内容。通过这门课程的学习,将为文学院汉语言文学专业核心课及其专业选修课打好基础,传授必需通用的文学理论基础知识,培养学生科学思维和利用理论分析文学现象的初步能力,从而为学习中外文学史和从事文学批评打下一定基础。由于文学理论在人文学科中的基础地位和与社会科学的关系,以及文学理论对人的思维训练和能力形成有很大的影响,因而它在人才培养、国民素质的提升方面起着十分重要和独特的作用。

这门课程主要培养学生以下几个方面的能力:

- 1、分析能力的培养培养学生针对文学现象分析各种文学思潮的形成、演变的原因的能力。
- 2、自学能力的培养通过本课程的学习,要培养和提高学生对所学知识和规律进行整理、归纳、总结和消化吸收的能力;能围绕教学内容,阅读参考书籍和资料,自我扩充知识的能力。
- 3、表达能力的培养主要通过课堂讨论,学会简明扼要的表达自己的解决问题的思路和步骤的能力。

Course description: Course description: As the core course of the School of Chinese Language and Literature, Literary Theory is a compulsory basic course of Chinese Language. The course content mainly includes the the nature of literary theory, literary activities, literary production, literary works, literature consumption and acceptance, etc. Learning this course will lay a foundation for the core courses and optional courses of the Chinese Language and Literature. Students will be trained to use the literature theories to analyse literary phenomenon. Because the literature theory stands a basic position in humanities and has a connection with social science, it plays a very important role in talent development and the increase of the national quality.

The main purposes of this course:

- 1). To train the students' analytical ability. Students will be trained to analyse the formation and changes of varies literature trends.
- 2). To develop the students' self-study ability. Students will learn to sort out and summarize the knowledge and laws with the content of this course and the reference books.
- 3). To train the students' ability to express themselves out. Students will learn how to express their ideas out and make themselves understood through classroom discussion.

编 码: CL04001	Code: CL04001
课程名称: 中国古代文学(1)(先秦两汉)	Course Title: Ancient Chinese Literature (1) (Pre-Qin and Han Dynasties)
课程类别: 学类核心	Course category: Major Survey Course
学 分: 5	Credit(s): 5
开课单位: 中国语言文学学院	Offering College/School: College of Chinese Language and Literature

课程描述: 本课程是汉语言文学专业的专业核心课,是整个中国文学课程的第一段,为“中国古代文学(二)”、“中国古代文学(三)”“中国古代文学(四)”和“中国现代文学”等课程的学习提供先期的知识储备和支撑。本课程主要包括中国神话、《诗经》、《楚辞》、先秦叙事散文、说理散文、汉代史传文、汉赋、汉乐府、文人诗歌等内容。通过本门课程的学习,帮助学生掌握中国古代文学的起源与发展,了解中国古代文学先秦两汉时期的演变规律;要求学生背诵、熟读一定数量的古代文学作品,熟悉作家作品和文学流派,打好古代文学方面的基础;同时,通过讲解具体的作品,帮助学生提高文言文阅读的能力;并要求学生能运用文艺理论的方法,独立地分析评论文学作品与文学现象。本课程要求学生背诵、熟读一定数量的古代文学作品,熟悉作家作品和文学流派,并通过本课程的学习,了解我国古代的优秀文化传统。

Course description: As the core of the curricula of Chinese Language and Literature, this course enables the students to comprehend the source and development of ancient Chinese literature and to master the laws and principles in the evolution of Chinese literature from pre-Chin era. Students are required to learn by heart a number of ancient literary works till they can recite them, and to be acquainted with literary genres and schools and with the life and works of famous writers, so as to lay a good foundation in the field of literary studies. Meanwhile, through lectures analysis of specific literary works, students are expected to improve their ability to read the Classical Chinese Literary Language, and to apply the methodology of literary theories in analysis and reviewing of literary works and literary phenomena. Students are required to learn by heart a number of ancient literary works till they can recite it, and to be acquainted with literary genres and schools and with the life and works of famous writers, so as to lay a good foundation in the field of literary studies and to master the great tradition of ancient Chinese culture.

编 码: CL04002	Code: CL04002
课程名称: 中国古代文学(2)(魏晋南北朝)	Course Title: Ancient Chinese Literature (2) (Wei,Jin,Northern and Southern Dynasties)
课程类别: 学类核心	Course category: Major Survey Course
学 分: 2	Credit(s): 2
开课单位: 中国语言文学学院	Offering College/School: College of Chinese Language and Literature

课程描述: 本课程是汉语言文学专业的专业核心课。通过本门课程的学习, 帮助学生掌握中国古代文学的起源与发展, 了解中国古代文学从先秦两汉时期的演变规律; 要求学生背诵、熟读一定数量的古代文学作品, 熟悉作家作品和文学流派, 打好古代文学方面的基础; 同时, 通过讲解具体的作品, 帮助学生提高文言文阅读的能力; 并要求学生能运用文艺理论的方法, 独立地分析评论文学作品与文学现象。本课程要求学生背诵、熟读一定数量的古代文学作品, 熟悉作家作品和文学流派, 并通过本课程的学习, 了解我国古代的优秀文化传统。

Course description: As the core of the curricula of Chinese Language and Literature, this course enables the students to comprehend the source and development of ancient Chinese literature and to master the laws and principles in the evolution of Chinese literature from pre-Chin era. Students are required to learn by heart a number of ancient literary works till they can recite them, and to be acquainted with literary genres and schools and with the life and works of famous writers, so as to lay a good foundation in the field of literary studies. Meanwhile, through lectures analysis of specific literary works, students are expected to improve their ability to read the Classical Chinese Literary Language, and to apply the methodology of literary theories in analysis and reviewing of literary works and literary phenomena. Students are required to learn by heart a number of ancient literary works till they can recite it, and to be acquainted with literary genres and schools and with the life and works of famous writers, so as to lay a good foundation in the field of literary studies and to master the great tradition of ancient Chinese culture.

编 码: CL04003	Code: CL04003
课程名称: 中国古代文学(3)(唐宋)	Course Title: Ancient Chinese Literature (3) (Tang and Song Dynasties)
课程类别: 学类核心	Course category: Major Survey Course
学 分: 3	Credit(s): 3
开课单位: 中国语言文学学院	Offering College/School: College of Chinese Language and Literature

课程描述: 本课程是汉语言文学专业的核心课程,以先秦两汉文学与魏晋南北朝文学为前导课程,为元明清文学和中国现当代文学等方面课程学习提供先期的知识储备和支撑。

本课程主要包括隋及唐代诗歌、唐代古文运动、唐传奇、唐变文、唐五代词、两宋诗文、两宋词、宋话本、辽金文学等内容,学生需了解中国古代文学在这个时期的发展情况,熟悉作家作品和文学流派,并背诵或熟读一定数量的古代文学作品,打好古代文学方面的基础。通过学习本课程,学生学会独立地分析评论文学作品与文学现象,锻炼和提升阅读、鉴赏、理解古代文学作品的能力,传承我国古代的优秀文化传统。

Course description: As the core of the curricula of Chinese Language and Literature, this course serve as a link between course of Wei Jin six Dynasties and course of Yuan Ming Qing Dynasties.

This course mainly includes poems in Sui and Tang dynasties, ancient prose movement in Tang dynasty, novel bianwen and ci in Tang dynasty, poem and prose in Northern and Southern Song Dynasties, ci in two Song dynasties, novel in song dynasties, literature in Liao and Jin dynasties.etc. The students are required to master the laws and principles in the evolution of Chinese literature in this period, and to be acquainted with literary works and schools. Students also must learn by heart a number of ancient literary works till they can recite them, so as to lay a good foundation in the field of literary studies. Through study this course, students are expected to analysis and review literary works and literary phenomena, and are required to exercise and improve the capacity of read appreciate and comprehend ancient literary works, so as to they can inherit the great tradition of ancient Chinese culture.

编 码: CL04004	Code: CL04004
课程名称: 中国古代文学(4)(元明清)	Course Title: Ancient Chinese Literature (4) (Yuan,Ming and Qing Dynasties)
课程类别: 学类核心	Course category: Major Survey Course
学 分: 3	Credit(s): 3
开课单位: 中国语言文学学院	Offering College/School: College of Chinese Language and Literature

课程描述: 本课程是汉语言文学专业的专业核心课,是讲授中国古代文学发展历程的第四段,以先秦两汉文学、魏晋南北朝文学、唐宋文学等课程为前导课程,并为此后的中国现当代文学提供知识储备和有力支撑。本课程主要包括元明清各时期的诗文创作、经典小说戏曲文本等内容。要求学生背诵、熟读一定数量的古代文学作品,熟悉作家作品和文学流派,能运用文艺理论的方法,独立分析评论文学作品与文学现象。通过讲授元明清文学,使学生了解、掌握该阶段文学的发展脉络,深化对经典文学作品的认识,提高文学鉴赏能力,提升人文素养,助其建构正确的价值观念。

Course description: As the core of the curricula of Chinese Language and Literature, this course focus on the fourth stage of development of ancient Chinese literature. Students are required to learn by heart a number of ancient literary works till they can recite them, and to be acquainted with literary genres and schools and with the life and works of famous writers, so as to lay a good foundation in the field of literary studies. Meanwhile, through lectures analysis of specific literary works, students are expected to improve their ability to read the Classical Chinese Literary Language, and to apply the methodology of literary theories in analysis and reviewing of literary works and literary phenomena. Through teaching Yuan Ming and Qing literature, students understand the context of the stage of development of literature, deepen understanding of classic literary works to improve the ability to appreciate literature, improve humanities, to help them construct the correct values.

编 码: CL04005	Code: CL04005
课程名称: 古代汉语(1)	Course Title: Ancient Chinese (1)
课程类别: 学类核心	Course category: Major Survey Course
学 分: 3	Credit(s): 3
开课单位: 中国语言文学学院	Offering College/School: College of Chinese Language and Literature

课程描述: “古代汉语”是汉语言文学专业的基础课程之一，以《现代汉语》为前导课程，是理论性、实践性和应用性很强的一门工具课。

本课程主要包括绪论、工具书的使用、汉字、词汇、修辞及先秦文选等教学内容。学生需要了解古代汉语学习和研究中常用的工具书、汉字形体演变的历史脉络、古汉语词汇的结构形式和合叙、错综等修辞方式等内容；理解古汉语词义的引申演变和古书中的异体字、古今字、通假字、繁简字等各种用字现象；掌握汉字结构的分析方法。通过学习本课程，学生能掌握古代汉语有关文字、词汇、修辞等要素的系统知识，以此为基础，初步形成利用语料归纳语言规律的理论探索意识，提高古代文献的阅读，加深对现代汉语的理解，能批判地继承我国古代的文化遗产。

Course description: "Ancient Chinese language" is one of the basic courses in Chinese language and literature, with "modern Chinese" as the leading course, is a tool course with strong theoretical, practical and applicability.

This course mainly includes the introduction, usage of reference books, vocabulary, rhetoric, Chinese characters and the pre Qin Anthology and so on. Students need to know the often-used reference books in study and research of ancient Chinese, the historical context of the evolution of Chinese characters, the structural form of ancient Chinese vocabulary, some rhetorics like combination and intricate, etc. Understanding the extension and evolution of the meaning of ancient Chinese words, and all kinds of phenomenon of using words like variant Chinese character, Ancient and modern Chinese characters, Tongjia characters, complex form and simplified Chinese characters, etc. Mastering the analytical method of Chinese character structure. By the study of this course, students can master the system knowledge of ancient Chinese characters, vocabulary, rhetoric, etc. Based on this, preliminary form a theoretical exploration consciousness of using corpus to induce the the linguistic rules, improve the reading of ancient literature, deepen the understanding of modern Chinese, be capable of critically inheriting the cultural heritage of ancient China.

编 码: CL04006**Code:**CL04006**课程名称:** 古代汉语(2)**Course Title:** Archaic Chinese (2)**课程类别:** 学类核心**Course category:** Major Survey Course**学 分:** 3**Credit(s):** 3**开课单位:** 中国语言文学学院**Offering College/School:** College of Chinese Language and Literature

课程描述: 古代汉语（2）课程为汉语言文学专业学类核心课程，以古代汉语（1）为前导课程，为语言学方面课程学习提供必要的知识储备。

本课程主要包括古汉语语法、音韵、古书注解和标点常识、文选等内容。学生需了解古代汉语在语法、音韵等方面的特点，理解韵部、声纽、句读等基本概念，掌握词类活用、宾语前置等规则，并能灵活运用相关知识阅读、分析古代文献。

本课程旨在通过古代汉语基础理论、基本知识的教学以及有重点地阅读古代文献的实践，强化学生阅读古代文献的能力，提高汉语语言修养，批判地继承我国古代的文化遗产。

Course description: Archaic Chinese (2) is one of the core curriculum of students who major in Chinese Language and Literature, and it takes Ancient Chinese(1) as the the leading course, to provide the necessary knowledge for the study of the language curriculum.

This course mainly includes phonology, Ancient Chinese grammar, punctuation and annotation of ancient books, anthology and so on. Students need to know the grammatical and phonological characteristics of Ancient Chinese, understand the rhyme, initial consonants, punctuation and other basic concepts, master the word class conversion, the preposition of objects and other rules, and use flexibly the related knowledge to read and analyse ancient literature.

This course aims to enhance students' ability to read ancient documents, improve Chinese language accomplishment, and critically inherit the cultural heritage of ancient China through the teaching of basic theories and knowledge of ancient Chinese and the practice of reading the ancient literature.

编 码: CL05013**Code:**CL05013**课程名称:** 外国文学(1)**Course Title:**Foreign Literature (1)**课程类别:** 专业核心**Course category:**Required Core Course**学 分:** 3**Credit(s):**3**开课单位:** 中国语言文学学院**Offering College/School:**College of Chinese Language and Literature

课程描述: 本课程是中国语言文学专业的专业核心课程, 以中国文学史为前导课程, 为中国文学、东方文学、比较文学课程的学习提供借鉴和帮助。本课程主要包括西方文学的起源、发展和不同历史阶段西方文学的总体特征, 以及影响西方文学发展的西方文化、社会思潮背景等内容, 学生需要了解西方文学发展的历史进程, 理解中西文学、文化的本质特征, 能灵活运用分析文学文化特质、优点及不足的方法, 更好的理解中国本国文学文化并将其发扬光大。通过学习本课程, 学生学会感受世界各国优秀文学、文化的美, 获得西方文学史的基础知识并将其感受到的美准确漂亮的用语言文字表达出来, 锻炼和提升学生审美感受能力又提高学生语言表达能力和逻辑思辨能力。

Course description: as a core curriculum of Chinese Language and Literature major, taking <China literary history> as a leading course, provides reference and help for the study of Chinese literature, oriental literature and Comparative Literature. This course mainly includes contents of the origin and development of the western literature, the general characteristics of western literature in different historical periods, and the factors that affect the development of western literature. Students need to understand the historical process of the development of western literature, understand the essential characteristics of Chinese literature and western literature, be flexible in the use of methods of analysing traits, advantages and shortcomings of literary and cultural to have a better understanding of Chinese literature and culture and carry forward. By learning this course, students learn to feel the beauty of the world outstanding literary and cultural, have a basic knowledge of the history of the western literature and accurately use languages to express their feelings. At the same time, this course will help to enhance students' aesthetic ability, and improve the students' ability of language expression and logical thinking.

编 码: CL05014**Code:**CL05014**课程名称:** 外国文学(2)**Course Title:**Foreign Literature (2)**课程类别:** 专业核心**Course category:**Required Core Course**学 分:** 3**Credit(s):**3**开课单位:** 中国语言文学学院**Offering College/School:**College of Chinese Language and Literature

课程描述: 本课程是汉语言文学专业的专业核心课程,以《外国文学 1》和《文学理论》为前导课程,可为比较文学、西方文化和文学理论等课程的进一步学习提供借鉴和帮助。本课程主要包括五大板块的内容,涵盖古典主义文学、启蒙运动及其文学发展、浪漫主义文学、批判现实主义文学以及早期现代主义文学。学生需要了解从 17 世纪中期至 20 世纪初期西方文学发展的历史进程,理解不同文学流派的演变规律和逻辑关系,深入把握各流派文学的审美特质和思想内涵,并能从社会、思想和文化诸层面对经典作家及其创作进行深刻阐释。通过本课程学习,学生能感受世界各国优秀文学和文化之美,获得跨文化的思想视野和多维的审美能力,锻炼并提升学生的人文修养和艺术品位。

Course description: This course is an important part of "Foreign Literature (Major in European and American Literature)",which is the professionally obligatory course for the students in College of Chinese Language and Literature. Its main contents consist of the Western World Literature from eighteenth century to the twentieth century.Taking into account the complexity of Western literature, the course would focus on the important literary genre and great writers and take a means of thematic lecture to overview history of the Western Literature.As doing this,it will be in favor of constructing a complete and comprehensive understanding to western literature and overcoming the limitation of focusing on only“knowledge point”.

编 码: CL05015**Code:**CL05015**课程名称:** 现代汉语(1)**Course Title:**Modern Chinese Language (1)**课程类别:** 专业核心**Course category:**Required Core Course**学 分:** 3**Credit(s):**3**开课单位:** 中国语言文学学院**Offering College/School:**College of Chinese Language and Literature

课程描述: 《现代汉语(1)》是汉语言文学专业的专业核心课程，为后续的语言学理论性课程学习提供系统的基础支持。本课程主要包括现代汉语的语音、文字、词汇等内容，它以通用语言理论为指导，以国家的语言文字政策为依据，系统地讲授现代汉民族共同语的语音、文字、词汇三部分基础理论和基本知识，训练基本技能，培养和提高学生理解、分析和运用现代汉民族共同语的能力，为他们将来从事语言文字工作，包括教学和科学研究工作，打好基础。

Course description: Modern Chinese(1) belongs to one of core curriculums for students, whose major is Chinese Languages and Literature. This course aims to provide a theoretical and systematic understanding of linguistics. The focus of this course is on various areas of Modern Chinese, that is, phonology and phonetics, words and characters etc. On the basis of the national language policy, the course offers a systematical knowledge of the common language in China, that is, Mandarin. Through this course, the students are able to learn the fundamental and systematical knowledge as well as basic theories of Mandarin knowledge, that is, phonology and phonetics, words and characters. Besides, the course is also able to cultivate their basic skills of analysing and processing Mandarin. These skills and abilities will lay a solid foundation for students, whose work are involved with writing, or teaching, and those who are dedicate to do scientific research in the future.

编 码: CL05016**Code:**CL05016**课程名称:** 现代汉语(2)**Course Title:**Modern Chinese Language (2)**课程类别:** 专业核心**Course category:**Required Core Course**学 分:** 3**Credit(s):**3**开课单位:** 中国语言文学学院**Offering College/School:**College of Chinese Language and Literature

课程描述: 本课程是汉语言文学专业的核心课程,以《现代汉语 1》为前导课程,为汉语言文字学方面的《语言学概论》、《汉语史》、《语言学史》、《汉语语法修辞学》等后续课程的学习提供基础。

本课程主要包括现代汉语(普通话)语法和修辞两大方面的内容,学生需要了解现代汉语各类词的用法,短语、句子的结构和类型,语音、词汇、句式的修辞技巧,常用的修辞格,理解现代汉语语法的特点和修辞的原则,掌握现代汉语语法、修辞的基本规律,并能够灵活运用所学知识解决实际语言生活中碰到的具体语法修辞问题。通过本课程的学习,学生学会语法修辞使用与分析的基本技能,获得和提升辨认词性、分析句子、分辨正误、辨认辞格、赏析语言的能力和准确、得体表达汉语的能力,为他们将来从事语言文字工作或其他与语言文字处理有关的工作打好基础。

Course description: This course is the core of Chinese and Literature Specialty. It's preceding course is Modern Chinese I. Advanced courses, such as the Outline of Linguistics,the History of Chinese Language, the History of Linguistics and Chinese grammar and rhetoric will be based on this course.

In this course , we will teach students basic theory and basic knowledge about grammar and rhetoric of Modern Chinese Language (Putonghua) ,including all parts of speech usage, structure and type of phrase and sentence, rhetoric skills of pronunciation, vocabulary and sentence pattern, common rhetoric, train and improve students' basic ability of understanding, analyzing and using Putonghua. We hope lay a good foundation for students' future in language text and language processing work or other relevant work.

编 码: CL05027	Code:CL05027
课程名称: 中国现当代文学(1)	Course Title:Modern and Contemporary Chinese Literature (1)
课程类别: 专业核心	Course category:Required Core Course
学 分: 3	Credit(s):3
开课单位: 中国语言文学学院	Offering College/School:College of Chinese Language and Literature

课程描述: 本课程是中国语言文学专业的核心课程, 辅以中国现代文学作品选两卷, 是中国现当代文学(2)的先导课程, 同时为中国古代文学、比较文学、现代汉语等课程的学习提供借鉴和帮助。本课程主要培养学生了解中国现代文学的缘起、发生与发展; 熟悉不同历史阶段的文学运动、思潮、流派及其内在规律; 赏鉴经典作家的代表性作品及其创作风格; 初步养成现代文学研究的理论素质与历史眼光; 树立传承文学经典、光大文化传统的历史使命。

Course description: This course is the core of Chinese and Literature Specialty. It's supplemented by two volumes of Selected Readings from Modern Chinese Literature. It's preceding course is Modern and Contemporary Chinese Literature (2). This course enables the students to comprehend better in other courses included Ancient Chinese Literature, Comparative Literature, Modern Chinese Language. The purposes of this course are developing students understanding the origins, growth of modern chinese literature , distinguishing literary movements, literary trends, genres in different times of history, appreciating the works of classical writers, training the theory accomplishment of modern literature research, creating constancy of purpose toward spread of Chinese classic literature.

编 码: CL05028	Code:CL05028
课程名称: 中国现当代文学(2)	Course Title:Modern and Contemporary Chinese Literature (2)
课程类别: 专业核心	Course category:Required Core Course
学 分: 3	Credit(s):3
开课单位: 中国语言文学学院	Offering College/School:College of Chinese Language and Literature

课程描述: 本课程既是汉语言文学专业基础课,也是中国语言文学学科各专业核心课及其专业选修课的先修课程。它主要讲授 1949 年以来的中国作家、作品、文学思潮等内容。其基本目标是传授中国现当代文学基础知识;提高学生的文学素养;培养和提升学生的文学鉴赏能力;为学生提供初步的学术科研实践。要求学生以教材内容为线索精读或泛读阅读相关作品,做好读书笔记,认真撰写课程论文。

Course description: The course is both a basic course for the specialty of Chinese language and literature, but also the prerequisite course for core courses and specialized elective courses of the specialty of Chinese language and literature . It mainly include Chinese writers, works,Literary Trends, etc since 1949. Its basic objective is to Impart knowledge of the basics of modern and contemporary Chinese literature; It also want to improve students' literary accomplishment, to develop the ability of appreciate literature of students; to provide students with an academic preliminary research practice. It demands the students to read the relational works according to the teaching materials. The students also be require to writer reading notes and finish a course paper.

编 码: GE01011**Code:**GE01011**课程名称:** 中国语文**Course Title:**Chinese Language Arts**课程类别:** 通识必修**Course category:**Required General Education Course**学 分:** 2**Credit(s):**2**开课单位:** 中国语言文学学院**Offering College/School:**College of Chinese Language and Literature

课程描述: 中国语文是大学本科非中文专业人文素质教育课程,属于公共基础课,是为培养学生语文知识和写作能力、提高学生综合素质而设置的一门综合性文化基础课。通过学习这门课程,使学生们进一步了解和学习中华民族的优秀文化传统,培养高尚的思想品质和健康的道德情操;了解中国文学的发展历程,学会如何去分析、赏评文学作品;学习写作知识,进一步提高写作能力,旨在为学习高等教育各类专业课程、提高专业水平打下比较坚实的基础。

Course description: Chinese language is university undergraduate course of Chinese humanistic quality education course, belong to the public basic course, is to cultivate students' Chinese knowledge and writing ability, improve students' comprehensive quality and set up a comprehensive cultural basic course. By learning this course, make students further understand and study the excellent cultural tradition of the Chinese nation, cultivate the noble thought quality and healthy moral sentiment; Understand the development of Chinese literature, learn how to analysis and review of the literature; Writing learning, further improve writing ability, higher education is intended to study all kinds of professional course, improve their professional level to lay a more solid foundation

编 码: JM03002

Code:JM03002

课程名称: 中国古代文学作品选

Course Title:Selected Readings of Ancient Chinese Literary Work

课程类别: 学门核心

Course category:Introductory Major Course

学 分: 3

Credit(s):3

开课单位: 中国语言文学学院

Offering College/School:College of Chinese Language and Literature

课程描述: 中国古代文学作品选是高等院校本科阶段必修的一门基础课程。因这门课程涵括了原始歌谣、诸子散文、唐宋诗词、明清戏曲小说,全面深刻地呈现了中华民族优秀的传统文化。对于新闻传播与影视艺术专业的学生而言,修习中国古代文学作品选,有利于扩大自身知识面,提高鉴赏能力,提升人文素养,建构正确的价值观念。

Course description: Chinese Ancient Literature undergraduate colleges election is a compulsory basic course. This course covers the original songs, philosophers prose, poetry Tang and Song dynasties, the Ming and Qing drama novel, comprehensive and profound presents excellent traditional Chinese culture. For the news media and television arts students, practicing the ancient Chinese literary works selected, and expand their knowledge and improve the ability to appreciate and enhance the humanities, to construct the correct values.

编 码: JM03003

Code:JM03003

课程名称: 中国现当代文学作品选

Course Title:Chinese Modern and Contemporary Literature Works

课程类别: 学门核心

Course category:Introductory Major Course

学 分: 3

Credit(s):3

开课单位: 中国语言文学学院

Offering College/School:College of Chinese Language and Literature

课程描述: 本课程是新闻传播与影视艺术学院广告专业的专业核心课程。本课程涵盖诗歌、小说、散文、戏剧等文体, 精讲鲁迅等中国现当代文学史中 12 位重要作家的经典作品。通过学习本课程, 学生能掌握一定文本细读的技巧, 提高分析和鉴赏文学作品的能力与人文涵养。

Course description: <Chinese Modern and Contemporary Literature Works> is a core curriculum of School of Journalism and film and Television Arts advertisement major students. As a course of reading selected master pieces, it focus on specific works. The selected works are written by 12 genres in Chinese Modern and Contemporary literature and important writers, including poetry, drama fiction genre etc. This course aims at improving the students' reading skills of foreign literature, and letting them to get intelligence and aesthetic pleasure.

编 码: JM03004	Code: JM03004
课程名称: 外国文学作品选	Course Title: Selected Translations of Foreign Literary Works
课程类别: 学门核心	Course category: Introductory Major Course
学 分: 3	Credit(s): 3
开课单位: 中国语言文学学院	Offering College/School: College of Chinese Language and Literature

课程描述: 本课程是艺术类专业专业核心课程,以《艺术概论》和《中国文学作品选读》为先导课程,为中外文学史方面的学习提供外国文学史的内容。

本课程主要包括古希腊罗马文学、基督教与中世纪欧洲文学、欧洲文艺复兴文学、古典主义文学和启蒙主义文学等内容,学生需要了解西方文学的发展脉络、主要文学思潮流派和名家名作,理解西方文学发展演变规律、文学特点和审美精神,以及掌握阅读分析外国文学作品的能力,并能够以“去粗取精”原则,吸取世界文化精华,获得开放性眼光与胸襟。通过学习本课程,学生将学会解读分析外国作品,获得智性的愉悦与美的享受,锻炼和提高综合的文学批评与鉴赏能力。

Course description: < Selected Translations of Foreign Literary Works> as a core curriculum of art major students, taking < Art Conspectus> and < Selected Readings of Chinese Literature Works> as the guide courses, provides the contents of foreign literature history for the study of Chinese and foreign literature history.

This course mainly includes contents of ancient Greek and Roman literature, Christianity and medieval European literature, European Renaissance literature, classical literature and Enlightenment literature. Students need to know the context of the development of Western literature, main literature genres and masterpieces, understand the development of western literature evolution, characteristics of literature and aesthetic spirit. Students also need to grasp the ability of reading and analyzing foreign literary works. According to “discard the dross and select the essential” principle, they are able to absorb the essence of world culture, and have open vision and mind. Through the study of this course, students will learn to read and analyze foreign works, get intelligence and aesthetic pleasure, improve the ability of literary criticism and appreciation.

编 码: HS03002

Code:HS03002

课程名称: 历史文选 I

Course Title:Selected Reading of History I

课程类别: 学门核心

Course category:Introductory Major Course

学 分: 3

Credit(s):3

开课单位: 岳麓书院

Offering College/School:Yuelu Academy

课程描述: 《中国历史文选》是历史系专业基础课之一，它以培养学生独立阅读、运用文言文史料，深入研究历史问题为主导思想。课程教学内容安排科学，以要籍介绍为纲，相关选文附后，要籍介绍简明扼要，重点突出，文选类型多样，注释精当，为学生全面了解和把握中国古代史学遗产，运用原始材料独立研究问题奠定了基础。

Course description: There is no contents at present.



编 码：HS03003

Code:HS03003

课程名称：历史文选 II

Course Title:Selected Reading of History II

课程类别：学门核心

Course category:Introductory Major Course

学 分：3

Credit(s):3

开课单位：岳麓书院

Offering College/School:Yuelu Academy

课程描述：《中国历史文选》是高等院校历史系专业的一门学科基础课，同时也是一门工具课，是历史专业主干课程之一。开设课程的目的在于培养学生初具阅读和使用一般文言文史料的能力，为进一步学习和研究奠定基础。任务是通过有选择性地学习中国历史文献典籍，使学生对史料的种类、源流、格式、内容等方面有较系统、感性的认识，并通过对文选中一些字、词及对地点、人物、事件、文物、典章制度等的讲解与疏通，使学生具备一些起码的文献常识，并与中国古代史的教学相配合，提高学生自学能力和独立思考能力。

Course description: There is no contents at present.



编 码: HS03004

Code:HS03004

课程名称: 历史文献学

Course Title:Bibliography

课程类别: 学门核心

Course category:Introductory Major Course

学 分: 3

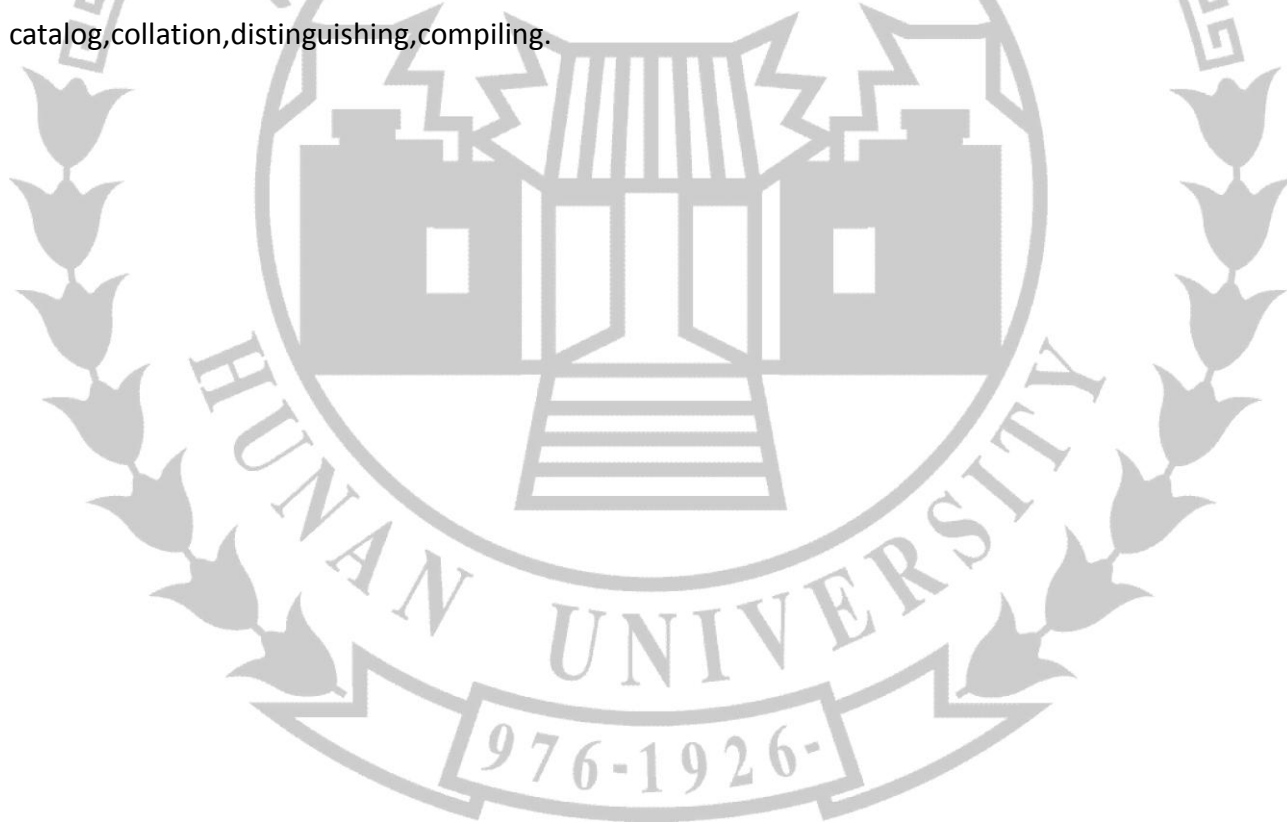
Credit(s):3

开课单位: 岳麓书院

Offering College/School:Yuelu Academy

课程描述: 历史文献学是对文献的产生发展、表现方式、流传情况,以及文献的内容类别、整理利用乃至文献数据化进行探讨和研究,并阐述其发展规律,总结其实践经验,进而加以理论说明和实际应用的一门综合性的学科,主要研究内容为文献的版本、目录、校勘、辨伪、辑佚等。

Course description: Bibliography is a comprehensive subject,Which is to discuss and study the development of the literature,The way of expression,The circulation,And the data of the literature.The main research contents are the document version of the catalog,collation,distinguishing,compiling.



编 码: HS03005**Code:** HS03005**课程名称:** 中国经典阅读**Course Title:** Reading of Chinese Classics**课程类别:** 学门核心**Course category:** Introductory Major Course**学 分:** 3**Credit(s):** 3**开课单位:** 岳麓书院**Offering College/School:** Yuelu Academy

课程描述: 这是一门为历史专业本科生开设的学门核心课。对历史专业尤其中国历史的学习而言,在本课程教学中所应该掌握的关于中国传统经典的基本精神与概念,是以后学习专业课程如中国文化史、中国思想史、中国古代史等等所必不可少的基础。本课程以《论语》导读为主要内容,旨在使学生不但能掌握有关中国传统经典之基本精神与基本概念的基础知识,更能具备分析问题、概括问题及解决问题的能力;从而能比较熟练地阅读关于中国文化的理论著作及在学习与生活过程中能对中国经典的基本概念与精神进行理解与应用。本课程自开设以来颇受欢迎,已成为岳麓书院最受欢迎的本科生课程之一。

Course description: This is a course for majors of history, aiming at the students' mastery of the basic spirit and concepts of Chinese classics and the development of their reading techniques of Chinese classics, thus laying a solid foundation for their study of follow-up courses such as Chinese culture history, Chinese thought history, Chinese ancient history, etc.. The study of this course develops the students' ability to analyze and solve practical problems, to understand Chinese theoretical works and use the basic concepts and theories of Chinese famous works. The main contents of this course are introduction to Chinese classics such as Analects, Mencius, Book of Changes, Laozi, Zhuangzi, etc..

编 码: HS03006**Code:** HS03006**课程名称:** 史学概论**Course Title:** Introduction to Historiography**课程类别:** 学门核心**Course category:** Introductory Major Course**学 分:** 3**Credit(s):** 3**开课单位:** 岳麓书院**Offering College/School:** Yuelu Academy

课程描述: 本课程是历史学专业的核心基础课。在学习了中外通史课程之后,需要对历史学自身有一个总体性的反思,包括历史学的学科属性、哲学基础、形成过程、史学编纂与研究方法等方面的问题。通过《史学概论》的学习,了解历史学的学科结构、基本要素、基本问题、主要理论流派及史学研究方法,了解中西史学传统的异同,以及面向未来的发展潮流。通过学习和讨论,能够对中西历史学的生成和发展有所了解,认识到历史学的基本属性和研究宗旨,树立正确的历史观和史学观,尝试用历史唯物主义的理论认识人类历史演进的规律和方向,具备阅读历史文献的能力和分析解释历史的能力,认识到作为史学工作者的责任。

Course description: The outline of Historiography is the core curriculum of history major. After learning a general history of China and foreign countries, students are required to have a comprehensive understanding about history itself, including its' subject character, philosophy basis, forming process, and compiling and studying method. What's more, mastery of this lesson will not only enlighten students on the subject structure, primary factors and questions, main scholars and researching methods of this field; but this also contributes to students' awareness of the differences and similarities between Chinese and Western history tradition as well as facing future development trend. After learning and discussing, students shall have a common understanding about the generation and development of both Chinese and Western history, as well as the essence and purpose of this subject. More importantly, they are able to hold a proper view towards history and historiography. We hope that students will try to apply historical materialism to comprehend the historical discipline and direction of people's evolution, therefore, not only will they be able to read and analyze historical documents, but they will also recognize their responsibilities as historiography workers.

编 码：HS03007

Code:HS03007

课程名称：考古学通论

Course Title:General Theory of Archaeology

课程类别：学门核心

Course category:Introductory Major Course

学 分：3

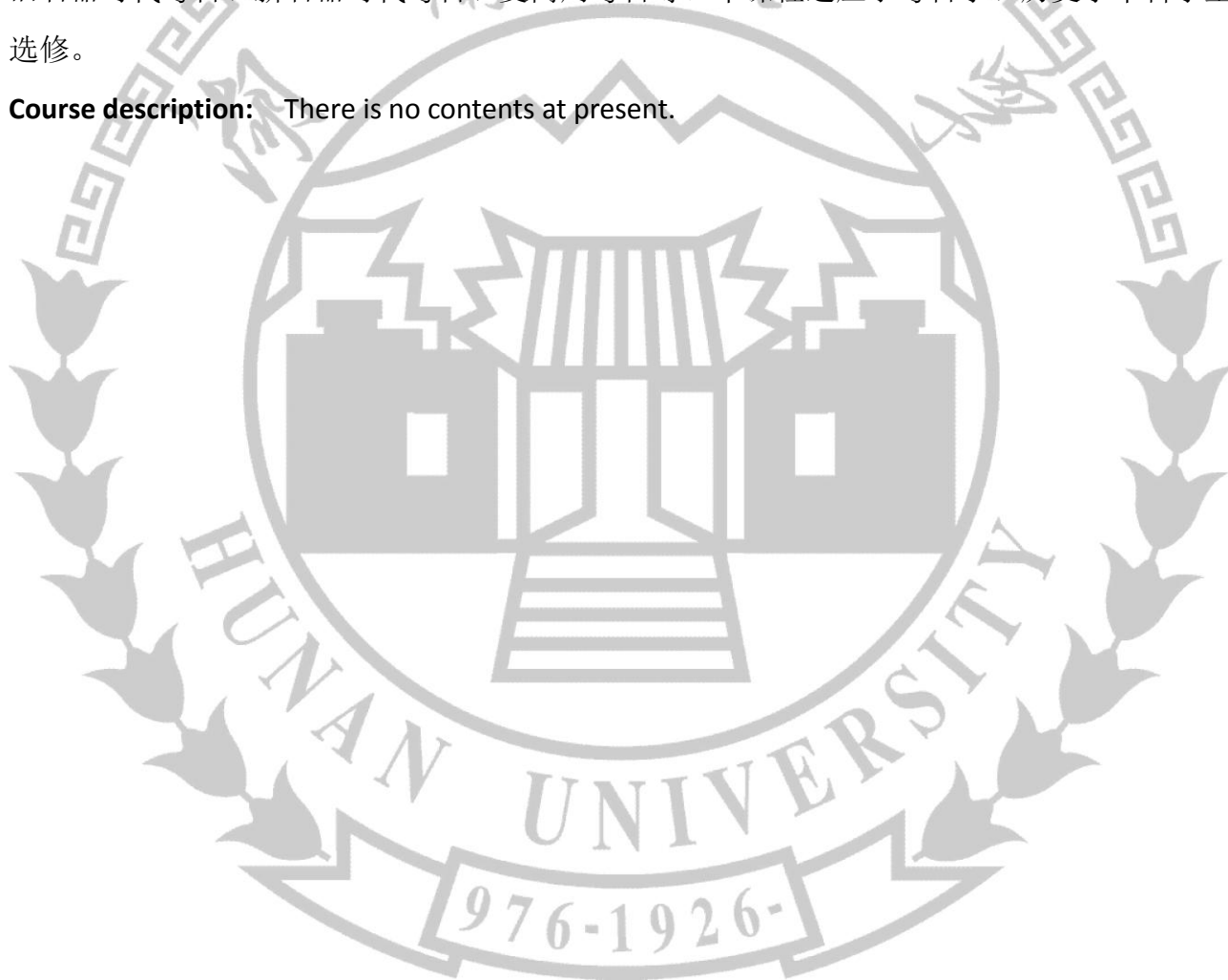
Credit(s):3

开课单位：岳麓书院

Offering College/School:Yuelu Academy

课程描述： 本课程是对考古学这门学科及中国考古学发展状况进行了解的基础性课程。分为考古学概论和中国考古学概况两个部分。前一部分重点讲授考古学的基本概念、考古学发展史、考古学基本理论与方法；后一部分主要中国境内各个阶段考古发现与研究的现状，含旧石器时代考古、新石器时代考古、夏商周考古等。本课程适应于考古学、历史学本科学生选修。

Course description: There is no contents at present.



编 码: HS03008**Code:** HS03008**课程名称:** 西方经典阅读**Course Title:** Western Classics Reading**课程类别:** 学门核心**Course category:** Introductory Major Course**学 分:** 3**Credit(s):** 3**开课单位:** 岳麓书院**Offering College/School:** Yuelu Academy

课程描述: 本课程是历史和哲学专业学生的学门核心课程, 为学生深入阅读西方经典提供指导。本课程概述《圣经》的主要内容。学生需要了解《圣经》成书的历史背景, 理解《圣经》的内容和结构, 掌握《旧约》与《新约》的内在联系。通过学习本课程, 学生将学习贯穿全书的主题思想, 获得对《圣经》基本的神学思想概念的认识, 锻炼和提升寓意解经的能力。

Course description: This course is a core course required for all the undergraduate students majored in history and philosophy, which will help students to read western classics, the Bible. Students are required to know the main content of Bible and its historic background, and to grasp the relation between the Old Testament and the New Testament. Through the study, students will also get to know the basic ideas of theology, and the way of allegorical interpretation of the scripture.

编 码: HS04001**Code:** HS04001**课程名称:** 中国古代史 I**Course Title:** History of Traditional China I**课程类别:** 学类核心**Course category:** Major Survey Course**学 分:** 3**Credit(s):** 3**开课单位:** 岳麓书院**Offering College/School:** Yuelu Academy

课程描述: 本课程是学习历史学科和其他人文课程的基础, 讲授范围从原始社会到东汉王朝崩溃, 涉及政治、经济、思想文化、民族关系、社会生活等诸多层面。课程以历史发展进程为主线, 选取各章节中的关键问题, 介绍学术动态, 对重点问题做专题分析, 重点讲授, 并在讲授过程中适当穿插对基本历史史实的介绍, 对史料的分析 and 理解、对学术观点的辨析和讨论, 启发学生独立思考, 使学生得到对专业知识和学习方法、思维方式的综合训练, 为将来从事历史研究等工作打下良好的基础。

Course description: This is a basic course for majors of history and other humanities, which ranges from primitive society to disintegration of East Han Dynasty, involving political, economic, cultural, ethnic relations, and many other aspects of social life. Based on the main line of historical development, this course focuses on the key issues of each section and chapter, describes the academic trends and makes thematic analysis. In the lecture course, to some extent, basic historical facts will be introduced, historical data will be analyzed, and academic viewpoints will be discussed, aiming at inspiring students to think independently, and giving them comprehensive training on professional knowledge and means of learning and thinking in order to lay a good foundation for the future research work in history or other work.

编 码: HS04002**Code:** HS04002**课程名称:** 中国古代史 II**Course Title:** History of Traditional China II**课程类别:** 学类核心**Course category:** Major Survey Course**学 分:** 4**Credit(s):** 4**开课单位:** 岳麓书院**Offering College/School:** Yuelu Academy

课程描述: 本课程是历史学专业学生的专业基础课。课程通过讲授三国至五代时期各王朝发生、发展和演变的历史,使学生掌握这段历史的基本知识,了解学界对这段历史研究的一般动态,并穿插培养学生查阅文献资料并运用历史学科基本理论分析和解决问题的能力。

Course description: This course is a professional basic course of history majors. The curriculum will discuss the occurrence, development and evolution of each dynasty from the three kingdoms to the five dynasties. The aim is let students master basic knowledges of this period of history, know about the dynamics of history study about this period. At the same time, the curriculum will be interspersed with training students' ability of consulting literature material and using the basic theory of the subject of history to analyzing and solving problems.

编 码: HS04003

Code:HS04003

课程名称: 中国古代史 III

Course Title:History of Traditional China III

课程类别: 学类核心

Course category:Major Survey Course

学 分: 4

Credit(s):4

开课单位: 岳麓书院

Offering College/School:Yuelu Academy

课程描述: 本课程是历史学专业学生的专业基础课。课程通过讲授宋至清时期各王朝的政治、经济、社会与文化历史,使学生掌握这段历史的基本知识,了解学界对这段历史研究的一般动态,并穿插培养学生查阅文献资料并运用历史学科基本理论分析和解决问题的能力。

Course description: This course is a professional basic course of history majors. The curriculum will discuss political, economical, social and cultural history of each dynasty from Song to Qing dynasty. The aim is let students master basic knowledges of this period of history, know about the dynamics of history study about this period. At the same time, the curriculum will be interspersed with training students' ability of consulting literature material and using the basic theory of the subject of history to analyzing and solving problems.

编 码: HS04004

Code:HS04004

课程名称: 中国近代史

Course Title:History of Modern China

课程类别: 学类核心

Course category:Major Survey Course

学 分: 4

Credit(s):4

开课单位: 岳麓书院

Offering College/School:Yuelu Academy

课程描述: 使学生掌握中国近代史的基本知识, 了解该领域学术研究的一般动态, 培养学生查阅文献资料以及分析、综合能力, 理解马克思主义关于半殖民地半封建社会的基本理论, 认识其过渡性特点及发展演变的规律和趋向, 提高学生的人文素质。

Course description: The aim of this course is to enable students to master the basic knowledge of modern Chinese history, to realize the general academic research in this field , to cultivate their abilities of reference of materials and analysis, to understand the basic theory of Marxism about semi-colonial and semi-feudal society, acquainting themselves with its transitional characteristic and evolution rules and trends, and to improve their humanistic quality.



编 码: HS04005**Code:** HS04005**课程名称:** 中国现代史**Course Title:** History of Contemporary China**课程类别:** 学类核心**Course category:** Major Survey Course**学 分:** 4**Credit(s):** 4**开课单位:** 岳麓书院**Offering College/School:** Yuelu Academy

课程描述: 本课程是历史专业的专业核心课程,以中国古代史、中国近代史为前导课程,其研究对象包括政治、经济、军事、外交、文化、社会等各方面。本课程一方面把中国现代史置于中国通史系列的特定坐标上,注意其对中国前现代历史的衔接与传承;同时将其作为一个相对独立的历史单元,展示其主要的历史面相,揭示其因形势变化而形成的时代特征,发现隐藏于其中的历史规律。对于中国现代史研究中的重大问题以及最新的研究成果,本课程分若干专题进行深入讨论和分析。

Course description: On the one hand, this course placed modern Chinese history on a specific and converged the pre-modern Chinese history. At the same time, it is regarded as a relatively independent historical unit, showing its main history and revealing the characteristics that was formed by the changing situation, showing the hidden law of history. For the major issues and the latest results in the research of Chinese modern history, this course is divided into several the topics which would be deeply discussed and analyzed. Those topics includes politics, economics, military, diploma, culture and other aspects of society.

编 码: HS04006

Code:HS04006

课程名称: 中华人民共和国史

Course Title:History of the People's Republic of China

课程类别: 学类核心

Course category:Major Survey Course

学 分: 3

Credit(s):3

开课单位: 岳麓书院

Offering College/School:Yuelu Academy

课程描述: 中华人民共和国史是历史学专业的基础课之一。这段历史, 是中国通史的一个重要的部分。中华人民共和国史以社会主义建设为核心, 包括政治、经济、军事、外交、思想文化等各方面内容, 反映了新中国的社会历史进程和基本面貌。这门课程注重叙述 1949 年以后的中国社会变迁, 阐释中共领导人民开展中国社会主义建设的成功与失误, 为新时期的社会建设提供历史的借鉴和现实的启示。

Course description: History of the People's Republic of China is a required course in History. It's a important part of Chinese General History. This course is focused on socialist construction, including politics, economics, military, diploma, culture and other aspects of society. This course mainly describes the social change of China from 1949 and interprets the success and failure of socialist construction which provide historical reference and present enlightenment for the socialist construction of the new period

编 码: HS04007**Code:** HS04007**课程名称:** 世界上古史**Course Title:** History of Ancient world**课程类别:** 学类核心**Course category:** Major Survey Course**学 分:** 3**Credit(s):** 3**开课单位:** 岳麓书院**Offering College/School:** Yuelu Academy

课程描述: 《世界古代史》是历史学专业学生必修的一门基础课。它研究的是原始社会和奴隶社会的历史,通过本课程的系统学习与研究,目的在于培养出具有较高的马列主义素养、热爱专业学习、精通专业知识和外语、掌握科学的学习与研究方法,德、才兼备的史学工作者和教育者。通过世界古代史课程的教学与研究,要求学生全面了解本学科的基本知识、并运用马列主义的基本原理去认识和掌握古代社会的发展规律。

Course description: The Ancient History of the world which studies the primitive society and slave society is a compulsory course for the students of history department. The systematic study and research of the course aims to train the historical workers and educators who equipped with high level of professional knowledge and foreign language ability. Through the teaching and researching of this course, students can have a comprehensive understanding of the subject and use the principle of Marxism to hold the rule of the Ancient World.

编 码: HS04008**Code:** HS04008**课程名称:** 世界中古史**Course Title:** History of Medieval World**课程类别:** 学类核心**Course category:** Major Survey Course**学 分:** 3**Credit(s):** 3**开课单位:** 岳麓书院**Offering College/School:** Yuelu Academy

课程描述: 本课程是历史本科专业的核心课程,以世界中古代史为前导课程,为世界近代史课程学习提供前提和基础。

通过学习本课程,学生学会以马克思主义理论为指导,获得世界范围内封建社会形态的产生、发展和衰亡的历史图景,了解世界中世纪史的重要历史人物、历史事件、历史现象和历史发展线索,探索封建制度下世界主要国家社会生产力和生产关系、经济基础和上层建筑的矛盾及其发展规律,认识人类社会发展规律,使学生锻炼和提升具体史实具体分析,从错综复杂的中世纪历史现象中分析这一时期世界历史的统一性和多样性,并希望学生不断强化民主与法治意识,使之形成正确和进步的历史观。

Course description: This is an essential course for majors of history. The theoretical basis guiding the course is Marxism. The course researches mainly the course of the emerge, development, decline and fall of feudal society within the world; explores the contradiction and law of the feudal productive forces and production relation, the economic base and superstructure; knows the seeds of capitalism and the origin of colonialism; hopes the students understand the historical figures, events, phenomena and clues in the Middle-Ages. The students should make a concrete analysis of the concrete historical facts, find the unity and variety about the world history of the times from the intricate phenomena. Through teaching this course, we also hope the students cultivate the spirit of advocating science and democracy, make the students acquire a correct history outlook.

编 码: HS04009**Code:** HS04009**课程名称:** 世界近代史**Course Title:** History of Modern World**课程类别:** 学类核心**Course category:** Major Survey Course**学 分:** 3**Credit(s):** 3**开课单位:** 岳麓书院**Offering College/School:** Yuelu Academy

课程描述: 本课程是历史学专业基础必修课。通过 16—19 世纪世界历史发展基本史实的讲授和学习,使学生了解世界近代历史发展的基本线索,掌握世界近代史的基本史实,提高学生促进相关学科的学习。本课程的前导课程为世界古代史、世界中世纪史,学生必须掌握世界古代史和中世纪史的基本线索、重大历史事件和重要的历史名词概念等知识,后续课程为世界现代史、世界当代史。

Course description: Modern history of the world(1640-1917) is one of the required basic subject of history. By teaching and learning the basic world history facts over the period from 16s century to the 19s , students can learn the primary clue and basic matters of modern world history as well as improve their ability of learning relative subjects. Leading courses are ancient world history and middle ages history of the world ,students were asked to master their primary clue , important history affairs and terms . Successive course divide into modern world history and contemporary world history.

编 码: HS04010**Code:** HS04010**课程名称:** 世界现代史**Course Title:** Modern History of the World**课程类别:** 学类核心**Course category:** Major Survey Course**学 分:** 3**Credit(s):** 3**开课单位:** 岳麓书院**Offering College/School:** Yuelu Academy

课程描述: 《世界现代史》是历史学本科专业的一门基础课，是世界通史的一部分，它包括从 20 世纪初（1900 年）至第二次世界大战后结束（1945 年）这段时间的世界历史。作为专业基础课，它的主要任务是使学生掌握有关现代世界的基本历史知识和基本理论知识，提高运用马克思主义观点、方法分析历史问题的思维能力和历史洞察力，为进一步向史学的深度广度进军打下基础。

Course description: The Modern World History is a basic professional course for undergraduates History Department, which mainly studies the historical events took place between 1900 and 1945. As a basic professional course, its main task is to enable the students to capture and master relevant knowledge of modern world history and the basic theories of this subject, improve the students' ability of analyzing and solving problems.

编 码: HS04011**Code:** HS04011**课程名称:** 世界当代史**Course Title:** Contemporary History of the world**课程类别:** 学类核心**Course category:** Major Survey Course**学 分:** 3**Credit(s):** 3**开课单位:** 岳麓书院**Offering College/School:** Yuelu Academy

课程描述: 《世界当代史》是历史学本科专业的一门基础课，是世界通史的一部分，它包括自 1945 年第二次世界大战结束直到今天的世界历史。本课程任务主要包括：使学生系统了解世界当代历史的发展历程、各历史阶段的基本特征、各种重大历史事件之间的内在联系；学会运用马克思主义的基本观点和方法，正确分析世界当代历史中的问题；培养学生辨别、分析史料和阐明问题的能力；善于从全球范围的纵向与横向眼光，观察世界的发展变化，以及不同国家走过的不同发展道路。

Course description: The Contemporary History of the world is a basic professional course for undergraduates of History Department, which mainly research the historical events took place since the end of the second world war in 1945. The roles and aims of this course in the teaching procedure are as following: show the students the developing process of the contemporary world systematically, and display them the inner links between the various major historical phenomenon and the basic characteristics of different stages; introduce them the methods of analyzing the problems in contemporary world with the basic principles of Marxism; what's more, cultivate the student's ability of discriminating, elaborating and analyzing historical materials; make them get the secrets of observing the development of the world situation and different developing roads of various countries easily with the longitudinal and transverse view.

编 码: HS05018**Code:** HS05018**课程名称:** 中国史学史**Course Title:** History of Chinese Historiography**课程类别:** 专业核心**Course category:** Required Core Course**学 分:** 3**Credit(s):** 3**开课单位:** 岳麓书院**Offering College/School:** Yuelu Academy

课程描述: 《中国史学史》是历史学专业本科生的核心课程，旨在让学生了解中国传统史学的发展历程及学术传统，并在中西史学传统的比较中认识历史学的基本（共性）问题以及中国传统史学的特质。传统史学的发展主要包括以下三个层次：中国传统史学的编纂史，历史思想（观念）史以及史学批评、史学理论的发展史。通过课程讲授结合讨论课的方式，要求学生对中国传统史学有大概的了解，认识到中国传统史学的优良传统，结合自身的兴趣，对一些史学问题有独立的思考和初步研究，能够独立完成学年论文的撰写。

Course description: History of Chinese Historiography is the core curriculum for undergraduates of history. It aims at getting students across the developing process and academic traditions of traditional Chinese historical studies, what's more, the basic questions of historical studies and the distinguishing feature of Chinese historical studies will be mastered through a comparison of historical studies between the Chinese tradition and the western tradition. The development of traditional history consists of three aspects: the compiling history of traditional Chinese historiography, the history of historical concepts, the development history of historical criticism and theory. With a combination of lecturing and seminar, students are not only required to have a general idea towards traditional Chinese history, but also be aware of its' excellence. Furthermore, they are expected to think independently and start to research according to their own interests on some historical questions and be able to finish the paper of this semester by themselves.

编 码: HS05019**Code:** HS05019**课程名称:** 西方史学史**Course Title:** History of Western Historiography**课程类别:** 专业核心**Course category:** Required Core Course**学 分:** 3**Credit(s):** 3**开课单位:** 岳麓书院**Offering College/School:** Yuelu Academy

课程描述: 《西方史学史》是历史学本科专业必修课程之一，以《世界通史》为前导课程，为西方史学理论方面课程学习提供基础知识，本课程通过对自西方史学诞生到至今的西方史学发展脉络的展示，凸显西方史学发展历程中的彪炳史册的史家、流芳千古的史著、影响深远的史学流派，勾勒西方史学思想发展演变的全过程，以期强化对西方史学文化的理解。

Course description: the Western historiography" is the compulsory courses that the students of the history department must study it. Through this course, the students can hold the development of the western historiography since the birth of Western historiography to today, and understand the history of the development of western historiography annals of historians, famous historical writings and the further impacts of the historical schools. For the students, it is necessary to grasp the macro developments of two thousand years of Western history and the changes in the overall trend, and scientifically analysis and understand of the various periods of the thoughts and the historiography methods of the historiography, and correctly evaluate a greater impact on various areas of historians and Historical Achievement, and understand the historical cultures.

编 码: HS05021

Code:HS05021

课程名称: 中国思想史

Course Title:Intellectual History of China

课程类别: 专业核心

Course category:Required Core Course

学 分: 3

Credit(s):3

开课单位: 岳麓书院

Offering College/School:Yuelu Academy

课程描述: 这是一门为历史专业本科生开设的专业基础课。要求学生掌握中国历史上主要的思想、学说及其社会思潮,了解思想发展的历史脉络,理解各个时期思想的特点及其历史地位。

Course description: This is a basic course for students who major in history. Through teaching, make the student grasp the main idea, theories and social ideological trend in Chinese history, understand the development of intellectual history, the characteristics and historical position of various periods.



编 码: HS05024**Code:** HS05024**课程名称:** 中国经学史**Course Title:** History of Confucian Classics**课程类别:** 专业核心**Course category:** Required Core Course**学 分:** 3**Credit(s):** 3**开课单位:** 岳麓书院**Offering College/School:** Yuelu Academy

课程描述: 经学是中国传统文化的主干。本课程是历史专业的专业核心课程，以中国通史等为前导课程，可为深入学习中国传统文化方面的课程提供必要的基础知识。

本课程主要讲授中国经学萌生、形成、发展、繁荣与衰落的历史，上起先秦，下迄民国，以汉、唐、宋、清四个时期为主，以各个时期重要的经学事件、人物、著述、学派为重点，讲解与讨论中国经学史上的重大问题，学生需要了解中国二千多年经学发展的基本史实，掌握经学史上的若干重要专题。通过本课程的学习，学生将对以儒家经学为核心的中国传统文化有深切的认识，增加对祖国优秀历史遗产的尊重与同情理解。

Course description: Confucian classical study was the principal part of Chinese traditional culture. This course aims to tell the history of the origin, formation, development, booming and fading of Confucian classical study from the pre-Qin dynasty to the Republic China. This course will focus the history of Confucian classical studies on four periods, that is, Han, Tang, Song and Qing dynasties, and discuss some very important problems such as the events, figures, works and schools of Confucian classical studies.

编 码: HS05025

Code:HS05025

课程名称: 中国政治制度史

Course Title:History of Chinese Political System

课程类别: 专业核心

Course category:Required Core Course

学 分: 3

Credit(s):3

开课单位: 岳麓书院

Offering College/School:Yuelu Academy

课程描述: 本课程是历史学本科专业的专业限选课程。本课程主要讲授中国古代各种重要政治制度的形成、发展和演变过程,分析其利弊与特点,阐明其规律性。

Course description: The History of Chinese political system is a limited optional course for undergraduate history major. This course mainly introduces the formation, development and evolution process of various important political system in ancient China, analyzes its advantages and disadvantages, and outlines its regularity.



编 码: HS05026

Code:HS05026

课程名称: 中国经济史

Course Title:History of Chinese Economy

课程类别: 专业核心

Course category:Required Core Course

学 分: 3

Credit(s):3

开课单位: 岳麓书院

Offering College/School:Yuelu Academy

课程描述: 本课程是历史学本科专业的专业限选课程。本课程讲授中国经济自先秦至清末的发展历史, 重点讲述传统农业、手工业与商业的成就, 阐述其发展的主要特征与基本规律。

Course description: The History of Chinese economy is a limited optional course for undergraduate history major. This course introduces the development of chinese economy from Pre Qin to late Qing dynasty, focuses on the achievements of tradional agriculture, handicraft industry and business, expounds the main features and the basic rules of its development.



编 码: BS04009(11)	Code: BS04009(11)
课程名称: 生物化学实验 I、II	Course Title: Biochemistry Experiment I、II
课程类别: 学类核心	Course category: Major Survey Course
学 分: 2	Credit(s): 2
开课单位: 生物学院	Offering College/School: College of Biology

课程描述: I:本课程是为生物技术和生物医学工程专业学生开设的专业核心课,前导课程为有机化学和普通生物学。本课程通过对蛋白质,酶,核酸的定性和定量实验,着眼于促进学生学习 and 掌握生物化学课程的基本理论、基本知识以及掌握实验技能,为专业课的学习和专业技能的培训奠定良好的基础,培养学生具有初步的科学实验能力及严格的科学作风,同时验证生物化学的某些基本理论知识,加深感性认识,并通过严格的实验要求和管理,诱导和培养学生将所学的知识和技能用于今后的社会实践及创新的思维方法和动手能力。

II: 本课程是生物技术和生物医学工程专业的专业核心课程,以生物化学 I、普通生物学、有机化学、分析化学实验为前导课程,为分子生物学、遗传学实验课程学习奠定基础。本课程主要实验内容包括蛋白质分子量测定、氨基酸分离和鉴定、脂肪代谢产物的鉴定等。学生需学习和掌握生物化学课程的基本理论、基本知识以及实验技能,为专业技能的培训奠定良好的基础。通过整个实验教学过程,验证生物化学的某些基本理论知识,加深学生的感性认识,培养学生的动手能力及严格的科学作风,并使具备将所学的知识和技能用于生命科学研究和社会实践的能力。

Course description: I: This is a key course for majors of biotechnology and biomedical engineering, aiming at the students' mastery of the basic concepts and theories of biochemistry with organic chemistry and common biology as the leading courses. Emphasis is placed on the biological and chemical backgrounds of biological macromolecule (i.e. protein, lipids, carbohydrate, enzymes and nucleic acids) with an emphasis on the structure, function, and properties, understanding of the types, characteristics and functions of vitamins, antibiotics, hormone and biological membranes. The study of this course develops the students' ability to analyze and solve practical problems, and their capacity and technology in molecular level understanding of biological phenomena, to understand the biochemical behavior and use the biochemical knowledge in professional learning and practice appears. The main contents of this course are the structure, properties and functions of proteins, enzymes, nucleic acids and other biological macromolecules; biosynthesis of biological macromolecules precursors; storage, transmission and expression of genetic information, etc.

II: This is a core course for majors of biotechnology and biomedical engineering, and biochemistry experiment I, general biology experiment, organic chemistry experiment and analytical chemistry experiment are the leading courses. This course aims to lay the foundation for studying molecular biology experiment and genetics experiment. The main contents of this course include determination of protein molecular weight, isolation and identification of amino acids, and identification of lipid metabolites, etc. Students need to study and master the basic concepts, theories and experimental skill of biochemistry, thus laying a solid foundation for their professional skill training. The study of this course, in which some basic theories of biochemistry can be validated and further understood by students, their ability of scientific research and forms strict scientific manner will be developed. Moreover, students will be able to use their knowledge and skill learned from this course for future life scientific research and social practice.

编 码: BS04020

Code:BS04020

课程名称: 专业导论课程

Course Title:Introduction to Major

课程类别: 学类核心

Course category:Major Survey Course

学 分: 1

Credit(s):1

开课单位: 生物学院

Offering College/School:College of Biology

课程描述: 本课程为生物技术和生物医学工程专业的核心课程,也是这两个专业的前导性课程,对学生了解自己所学专业的背景、课程设置、学科发展前沿、毕业生能力和素质要求及未来工作去向起到引导性作用,引导学生逐步了解生物技术和生物医学工程专业并树立牢固的专业思想、确立自己的学习目标和努力方向。

Course description: This course is a core course for biotechnology and biomedical engineering, and it is also an induction course for biotechnology and biomedical engineering. This course will play the roles of guidance to understand their professional background, curriculum, subject development frontier, graduates' ability and quality requirements and future work. It will help students to develop an understanding of biotechnology and biomedical engineering, and establish firm professional thought, learning objectives and their own direction.

编 码: BS04021(-22)	Code:BS04021(-22)
课程名称: 生物化学 I、II	Course Title:Biochemistry I、II
课程类别: 学类核心	Course category:Major Survey Course
学 分: 6	Credit(s):6
开课单位: 生物学院	Offering College/School:College of Biology

课程描述: I:本课程是为生物技术和生物医学工程专业学生开设的专业核心课,通过该课程的学习使学生掌握现代生物化学的基本理论、基本知识,以有机化学和普通生物学为前导课程,为学生学习相关后续专业课程,如分子生物学、生物化工、环境微生物学等,打下坚实基础。通过生物化学的整个教学过程逐渐培养学生分析问题、概括问题的能力,培养学生从分子水平认识生命现象的能力与技术,对专业学习、实践过程中出现的生物化学现象能予以理解和利用;主要内容为生物化学的基本方法和基本原理,具体包括:蛋白质、酶、核酸等生物大分子的结构、性质及功能;生化物质代谢,遗传信息的储存、传递和表达等。

II: 本课程是生物技术和生物医学工程专业的专业核心课程,以普通生物学、有机化学、分析化学和生物化学 I 为前导课程,为分子生物学、遗传学课程学习奠定基础。本课程主要包括糖代谢、蛋白质代谢、脂肪代谢、核酸代谢等内容,学生需要了解生物化学的基本理论、基本知识和基本方法,掌握糖、蛋白质、脂肪、核酸等生物大分子的代谢过程和调控机制。通过学习本课程,使学生理解生物体生命活动过程中的很多生化反应和化学变化,学会运用生物化学知识解释各种生命活动现象,提升运用相关研究方法分析和解决生物学问题的能力。

Course description: I: This is a key course for majors of biotechnology and biomedical engineering, aiming at the students' mastery of the basic concepts and theories of biochemistry with organic chemistry and common biology as the leading courses. Emphasis is placed on the biological and chemical backgrounds of biological macromolecule (i.e. protein, lipids, carbohydrate, enzymes and nucleic acids) with an emphasis on the structure, function, and properties, understanding of the types, characteristics and functions of vitamins, antibiotics, hormone and biological membranes. The study of this course develops the students' ability to analyze and solve practical problems, and their capacity and technology in molecular level understanding of biological phenomena, to understand the biochemical behavior and use the biochemical knowledge in professional learning and practice appears. The main contents of this course are the structure, properties and functions of proteins, enzymes, nucleic acids and other biological macromolecules; biosynthesis of biological macromolecules precursors; storage, transmission and expression of genetic information, etc.

II: This is a basic course for majors of biotechnology and biomedical engineering, and general biology, organic chemistry, analytical chemistry and biochemistry I are the leading courses. This course aims to lay the foundation for studying molecular biology and genetics. The main contents of this course include carbohydrate metabolism, protein metabolism, fat metabolism, nucleic acid metabolism, etc. Students need to understand the basic concepts, theories and methods of biochemistry, master the metabolic pathway and regulatory mechanism of biomacromolecule, including sugar, protein, lipid and nucleic acid. The study of this course enable student understand the biochemical action and chemical changes in organism. Moreover, the students' ability to explain all kinds of phenomena of vital activity using the biochemistry knowledge will be developed, and the students' ability to analyze and solve biological problem using basic research methods will be improved.

编 码: BS04023	Code:BS04023
课程名称: 微生物学	Course Title:Microbiology
课程类别: 学类核心	Course category:Major Survey Course
学 分: 3	Credit(s):3
开课单位: 生物学院	Offering College/School:College of Biology

课程描述: 本课程是生物技术专业的学类核心课程,以普通生物学和生物化学为前导课程,为分子生物学和基因工程等课程学习提供基础理论、知识和技能。本课程主要包括绪论、纯培养和显微技术、微生物的细胞结构与功能、微生物的营养、微生物的代谢、微生物的生长繁殖及其控制和病毒等内容,学生需掌握微生物的形态结构功能、生长发育、生理代谢、遗传变异、基因表达调控、基因工程、生态分布、分类进化和传染免疫的基本理论与基础知识,还需掌握微生物特有的分离和纯培养技术方法以及从事微生物学研究的基本技能,了解微生物学的发展历史特别是最新成果与技术,理解微生物学作为一门独立学科在生命科学发展中的重要作用和地位,并能将所学理论和知识灵活运用到其它相关课程和实际生活。通过学习本课程,学生学会微生物研究的基本技能,获得对微生物全面和深刻的认识,锻炼和提升思考和解决问题的能力及进行实验研究的能力。

Course description: This is a core course for Biotechnology majors. The precedent courses are General Biology and Biochemistry. This course provides basic theories, knowledge and skills for Molecular Biology and Genetic Engineering etc. The main contents of the course include Introduction, Pure Culture and Microscopic Techniques, Cell Structures and Functions of Microorganisms, The Nutrition of Microorganisms, The Metabolism of Microorganisms, The Growth and Proliferation of Microorganisms and Their Control, Virus, etc. Students should master basic theories and knowledge of microbial morphology, structure and function, growth and development, physiology and metabolism, genetics and variation, gene expression regulation, genetic engineering, ecological distribution, classification and evolution, and infection immunity. They are also required to grasp the unique isolation and pure culture methods of microorganisms and basic skills in microbiological research. They should be acquaintance with the developmental history of microbiology and in particular the latest achievements and technologies in Microbiology. The students should understand the important role and place of microbiology, which is an independent discipline, in the development of life sciences. They should be able to apply the theories and knowledge to related courses and their lives flexibly. By studying the course, the students will be trained to do microbiological research, and gain the comprehensive and indepth understanding of microorganisms. They will be trained to improve their abilities to think and solve problems and perform experiments.

编 码: BS04024	Code: BS04024
课程名称: 微生物学实验	Course Title: Microbiology Experiment
课程类别: 学类核心	Course category: Major Survey Course
学 分: 1	Credit(s): 1
开课单位: 生物学院	Offering College/School: College of Biology

课程描述: 本课程是生物技术专业的专业核心课程,以普通生物学和细胞生物学为前导课程,为本专业后续《分子生物学》《遗传学》《基因工程》等相关课程方面课程学习提供坚实的基础。

本课程主要包括微生物培养基的制备及灭菌、微生物观察、微生物染色、环境对微生物影响和微生物育种等内容,学生需了解微生物学的基本知识,理解课堂讲授的微生物学理论知识,掌握微生物学实验的基本技能,即显微镜操作技能,一般制片技能技术,培养基制备技术及接种、分离、培养和微生物育种等技能。并能灵活运用这些技能解决生活中遇到的与微生物相关的实际问题等。通过学习本课程,学生学会生物技术专业基本实验技能和应用实践能力,养成实事求是、严肃认真的科学研究态度,锻炼和提升独立思考、分析和解决问题能力,全面提高综合素质等。

Course description: This is a core course for majors of biotechnology. It requires general biology and cell biology as the prerequisite courses, and will provide theory supports for the following course, including Molecular biology, genetic engineering and Genetics, etc.

This course mainly includes microbial culture medium preparation and sterilization, microbial observation, staining of microorganisms and the environment influence on the microbial. After attending of this course, students are required to learn microbiological basic knowledge, to understand theory knowledge for microbiology, to master the basic skills of microbiology experiment. By learning this course, this course also trains students to solve practical problems based on the knowledge, thus to improve their ability to study the mechanism of life.

编 码: BS04025	Code:BS04025
课程名称: 普通生物学 I	Course Title:General Biology I
课程类别: 学类核心	Course category:Major Survey Course
学 分: 3	Credit(s):3
开课单位: 生物学院	Offering College/School:College of Biology

课程描述: 本课程是生物技术专业和生物医学工程专业的核心基础课程, 为细胞生物学、动物遗传学、动物生理学等方面的课程基本理论认识和基本知识了解。本课程以生物学系统知识为主线, 介绍动物学学科研究与发展的简史和前沿动态、动物生命的物质基础、动物机体的基本结构和功能、动物界主要类群的形态特征和分类系统、动物地理区划、动物与环境的辩证关系、动物的行为、以及动物的遗传、发育与进化等, 使学生掌握动物生物学的基本理论、基本知识和基本技能, 对动物生物学的各个方面有一概貌的了解, 理解动物类群的进化关系, 动物机体结构与功能的统一性, 动物生命活动的协调及其对环境的适应, 了解当代动物生物学研究的前沿信息、动物资源的生产应用和保护, 为后续课程奠定扎实的基础。

Course description: This is a basic course for majors of biotechnology and biomedical engineering, aiming at the students' go from the level of objective understanding of different levels of animal cells, tissues, organs, systems biological characteristics; control the activities of basic animal life process, law, mechanism, and the relationship between interdependence and mutual restraint; understanding the coordination of animals and the environment, unity between the different environmental conditions, animal species diversity and distribution and animal adaptation activities on the environment; understanding animal systems and the basic law of evolution, to recognize and initially grasp the major economic groups, rare and protected groups of important biological status and role, a better understanding of the nature of animal life and human activities on biodiversity conservation and responsibilities; get engaged Animal biology-related scientific research and other work necessary skills, abilities and quality of training and training.

编 码: BS04026**Code:**BS04026**课程名称:** 普通生物学 II**Course Title:**Plant Biology**课程类别:** 学类核心**Course category:**Major Survey Course**学 分:** 3**Credit(s):**3**开课单位:** 生物学院**Offering College/School:**College of Biology

课程描述: 普通生物学 II（植物生物学）是一门为生物技术、生物医学工程等专业学生开设的学科门类核心课程，是进一步学习遗传学、细胞生物学、分子生物学等课程的基础。该课程也适用于生物工程、环境科学等专业。主要内容包括植物的细胞与组织、植物器官的结构和发育、植物的生理与调控、植物的多样性与进化、植物与环境以及植物资源保护与利用等。

Course description: This is a professional core course for majors of biotechnology and biomedical engineering. It is the foundation course to further study of genetics, cell biology, molecular biology. The main content of plant biology include plant cells and tissues, the structure and development of plant organs, plant physiology and regulation, plant diversity and evolution, plants and the environment, protection and utilization of plant resources. This course enable students to master the basic knowledge and the basic principle of plant biology, understand the developmental history and dynamics of of plant biology.

编 码: BS04027**Code:**BS04027**课程名称:** 细胞生物学**Course Title:**Cell Biology**课程类别:** 学类核心**Course category:**Major Survey Course**学 分:** 3**Credit(s):**3**开课单位:** 生物学院**Offering College/School:**College of Biology

课程描述: 这是一门为生物技术和生物医学工程专业学生开设的主干基础课程, 是以细胞的超微结构及功能为主线, 侧重剖析细胞的重大生命活动规律的学科。通过该课程的教学使学生能够在显微、亚显微和分子三个不同水平上把细胞的组成、结构和功能结合起来, 更加精确地了解生物体的生长、发育、分化、繁殖、运动、遗传、变异、衰老和死亡等基本生命现象。同时, 本课程将经典内容与前沿知识紧密结合, 使学生既能系统掌握本学科的基本概念、基础理论, 又能更紧迫更全面地了解本学科研究的前沿进展。

Course description: This is a backbone foundational course for majors of biotechnology and biomedical engineering, which bases on the cell ultrastructures and functions as the main line and focuses on analysis of the law of major life activities of cells. The study of this course develops the students' ability to organize the cell composition, structure and function together at microscopic, submicroscopic and molecular levels, and to more accurately understand the organism's growth, development, differentiation, reproduction, movement, heredity, variation, aging and death, and other basic biological phenomena. Meanwhile, this course closely integrates the classical contents with the frontier knowledge, not only aiming at the students' mastery of the basic concepts and theories, but also more comprehensive and urgent understanding the frontier of discipline.

编 码: BS04028

Code:BS04028

课程名称: 细胞生物学实验

Course Title:Cell Biology Experiment

课程类别: 学类核心

Course category:Major Survey Course

学 分: 1

Credit(s):1

开课单位: 生物学院

Offering College/School:College of Biology

课程描述: 这是一门为生物技术和生物医学工程专业学生开设的主干基础课程, 是细胞生物学教学的重要组成部分。通过该课程的教学使学生能够掌握细胞生物学基本技术, 使其具有一定的基本实验技能, 培养独立设计实验的能力, 为今后独立从事科学研究打下坚实的基础。

Course description: This is a backbone foundational course for majors of biotechnology and biomedical engineering, which is the important part of cell biology teaching. The study of this course enables students to master the basic techniques of cell biology, so that they have certain basic experimental skills and develop the ability to independently design experiments, thus laying a solid foundation for the future independent scientific research.



编 码: BS04029**Code:**BS04029**课程名称:** 人体解剖生理学**Course Title:**Human Anatomy and Physiology**课程类别:** 学类核心**Course category:**Major Survey Course**学 分:** 3**Credit(s):**3**开课单位:** 生物学院**Offering College/School:**College of Biology

课程描述: 《人体解剖生理学》是由人体解剖学和人体生理学两部分组成。人体解剖学属于形态学，是研究人体形态结构及其规律的一门科学。人体生理学是研究生命活动基本规律的一门科学。本课程要求学生掌握人体解剖生理学的基本概念，生命活动的基本过程及其调节过程。生理学实验的基本技能及用计算机多媒体完成生理学实验的操作方法。熟悉人体解剖生理学在医学教育中的重要地位和重要性。了解生理学的发展历史和近年来某些研究进展。该课程总学时为 48 学时，学分 3，课程编号 BS04029，另单独开设《人体解剖生理学实验》课，总学分为 1 学分，总学时为 32 学时。教材选用岳利民，崔慧先主编《人体解剖生理学》（第六版），人民卫生出版社 2011 年出版。实验教材选用徐峰主编《人体解剖生理学实验》，中国医药科技出版社 2008 年出版。本课程为必修课。

Course description: Human Anatomy and Physiology consists of Human Anatomy and Human Physiology. Human Anatomy is a course of morphology which studies the morphological structures and the regular patterns of human body. Physiology explains and describes the rules of life activities. This course requires students mastering the fundamentals of Human Anatomy and Physiology, the basic processes of life activity and their regulations, the essential technologies of Physiology experiments and the skills of multimedia computer, completing the experiments and the method of operation, knowing well the place and the importance of Human Anatomy and Physiology in medical education, understanding the developmental history and advance research in the recent years.

The course contains 48 class hours. Its credit is 3 points and the course code is BS04029. It is a compulsory course. Teaching book: Human Anatomy and Physiology, Chief Editors: Limin Yue & Huixian Cui, The Sixth Edition, People's Medical Publishing House 2011. Additionally, a course in Human Anatomy and Physiology Experiment is provided. This course has 36 class hours and its credit is 1 point. Teaching book for experiment: Experiments Instruction of Human Anatomy and Physiology, Chief Editor: Feng Xu, China Medical Science Press 2008.

编 码: BS04030**Code:**BS04030**课程名称:** 人体解剖生理学实验**Course Title:**Human Anatomy and Physiology Experiment**课程类别:** 学类核心**Course category:**Major Survey Course**学 分:** 1**Credit(s):**1**开课单位:** 生物学院**Offering College/School:**College of Biology

课程描述: 本课程是生物医学工程专业的学类核心课程,以普通生物学为前导课程。本课程要求学生掌握人体解剖生理学的基本概念,生命活动的基本过程及其调节过程。生理学实验的基本技能及用计算机多媒体完成生理学实验的操作方法。实验部分主要包括人体各个系统的组成模型观察,各类上皮组织的显微观察、视敏度的测定,视野的测定,盲点的测定以及动脉血压的直接测定,直观理解两种声波传导途径。学习人体 ABO 血型的测定的方法与原理、心肌细胞的收缩特性(期前收缩与代偿间隙)及其原理、骨骼肌收缩的特点。

Course description: This course requires students to master the basic concepts of human anatomy and physiology, the basic process in life activity and its regulation. The operation methods of the basic skill of experiment in physiology and using computer to complete the physiology experiment. The experiment mainly includes an observation model of human body system, microscopic observation, as the various types of epithelial tissue, determination of sensitivity, measurement of visual field, blind spot assay and direct measurement of arterial blood pressure, intuitive understanding of two kinds of acoustic transduction pathway. Shrinkage characteristics of learning method for the determination of human ABO blood group and the principle, myocardial cells (systole and compensation gap), characteristics and principle of skeletal muscle contraction.

编 码: BS05004**Code:**BS05004**课程名称:** 分子生物学实验**Course Title:**Molecular Biology Experiment**课程类别:** 专业核心**Course category:**Required Core Course**学 分:** 1**Credit(s):**1**开课单位:** 生物学院**Offering College/School:**College of Biology

课程描述: 本课程是生物技术专业、生物医学工程专业的专业核心课程，以生物化学为前导课程，为基因工程、细胞工程等方面的课程学习提供理论基础。本课程主要包括核酸的提取、酶切操作、基因的分子克隆及蛋白表达与鉴定等四大部分内容，学生在了解分子生物学实验的基本原理基础上，通过学习本课程，不仅掌握分子生物学实验的基本技能，还能灵活运用这些实验技能去分析和解决生物学研究中的具体问题，从而提高其探索生命科学奥秘的能力。

Course description: This course is a core course for majors of both biotechnology and biomedical engineering. It requires biochemistry as the prerequisite course and will provide theoretical supports for the following course, including Genetic Engineering and Cell Engineering, etc. The contents of this course mainly includes basic skill of DNA extraction, enzymatic digestion, gene cloning , expression and identify of protein. On the base of learning the principles of molecular biology experiments, Students are not only required to grasp basic manipulating skills of molecular biology experiments but also can analysis and solve practical problems by using these methods so as to improve their ability of exploring the mechanism of life after attending this course.

编 码: BS05008**Code:**BS05008**课程名称:** 遗传学实验**Course Title:**Genetics Experiment**课程类别:** 专业核心**Course category:**Required Core Course**学 分:** 1**Credit(s):**1**开课单位:** 生物学院**Offering College/School:**College of Biology

课程描述: 本课程是生物技术专业的专业核心课,是遗传学课课堂教学的辅助环节和延伸。本课程主要包括经典遗传学和细胞遗传学等领域的实验内容,通过动手和观察验证并巩固遗传学课堂知识。学生需要了解遗传学研究方法和手段,理解遗传学的基本理论和原理,掌握基本实验技能。通过学习本课程,学生学会遗传学基本实验原理与研究方法,获得遗传学实验技术和数据分析方法的实践机会,锻炼和提升学生进行遗传学及相关学科研究工作的能力。同时培养学生科学、严谨、实事求是的实验态度,提高综合实验素质,为今后的工作和研究打下良好基础。

Course description: As one of the core curriculum for Biotechnology majors, Genetics Experiment is an extension and auxiliary of the Genetics class. This class covers the experiment contents in the fields of Transmission Genetics and Cyto-Genetics. The main goal is to strengthen the knowledge learned in the Genetics class by means of hand-on experiences and experimental observation. Students are expected to know Genetics research methods and approaches, to understand basic Genetics theories and principles, to master basic experimental skills. Through studying this course, students will obtain opportunities to practice genetics experimental skills and data analysis methods, and thus promote their scientific research ability in Genetics or related disciplines.

编 码: BS05022**Code:**BS05022**课程名称:** 分子生物学**Course Title:**Molecular biology**课程类别:** 专业核心**Course category:**Required Core Course**学 分:** 3**Credit(s):**3**开课单位:** 生物学院**Offering College/School:**College of Biology

课程描述: 这是一门为生物技术和生物医学工程专业学生开设的核心专业课, 通过该课程的教学使学生能够掌握分子生物学的基本概念和理论, 为学生学习相关后续专业课程, 如基因工程、蛋白质组学等, 打下必不可少的基础; 本门课程的主要内容包括: 染色体与 DNA、基因和基因组学、基因的转录翻译、基因表达与调控、癌和病毒的分子生物学和基因与发育; 通过分子生物学的整个教学过程逐渐培养学生从分子水平上去分析、理解生命现象与过程以及思考与探索生命奥秘的能力。

Course description: This is a key course for majors of Biotechnology and Biomedical Engineering, aiming at the students' mastery of the basic concepts and theories of molecular biology, thus laying a solid foundation for the following courses including gene engineering and proteomics. It requires biochemistry as the prerequisite courses. The main contents of this course include: Chromosome and DNA, genes and Genomics, transcription and translation of gene, expression and regulation of gene, molecular biology of cancer and virus, Genes and Development. The study of this course develops the students' ability to analyze and solve the appearance and process of life from molecular level, to explore and explain the mystery of life.

编 码: BS05023**Code:**BS05023**课程名称:** 遗传学***Course Title:**Genetics ***课程类别:** 专业核心**Course category:**Required Core Course**学 分:** 3**Credit(s):**3**开课单位:** 生物学院**Offering College/School:**College of Biology

课程描述: 遗传学是为我校生物技术专业学生开设的专业核心课,以普通生物学和生物化学和为前导课程,为后续生物相关专业选修课程学习提供基础知识。本课程主要包括经典遗传学、细胞遗传学、分子遗传学和数量性状遗传等遗传学分支的内容,学生需了解遗传物质的本质、遗传物质的传递、遗传物质的变异等基本遗传学知识,理解生物遗传和变异的基本规律及其本质,掌握遗传学的基本概念、基本研究方法,并能灵活运用所学的基本原理分析遗传学数据,解释遗传学现象。通过学习本课程,学生学会遗传学的基本规律,获得运用所学的基本理论和实验技能说明和解决有关遗传学问题的方法和技术,锻炼和提升联系育种和医疗实践解决实际问题的能力。

Course description: Genetics is one of the core courses required for the Undergraduate Biotechnology major. The pre-requisites for this class include General biology and Biochemistry, and this course will provide the prerequisite knowledge for subsequent biology related elective courses. This course covers topics in multiple modern Genetics branches, including transmission genetics, cytogenetics, molecular genetics and quantitative-trait genetics. Students are expected to learn the basic genetic knowledge, such as the nature of genetic materials, the transmission of genetic materials, the variation of genetic materials, to understand the basic principles of heredity and variation, to master the basic genetics concepts and research methods, and to use these knowledge for analyzing genetic data and interpreting genetic phenomena. By studying this course, students will not only learn the basic genetic principles, but also acquire methods and techniques for solving genetic problems by using basic genetic theory and experimental skills, as well as promote their abilities of solving practical issues in agricultural breeding and medical practice.

编 码: BS05024	Code: BS05024
课程名称: 酶与发酵工程	Course Title: Enzyme and Fermentation Engineering
课程类别: 专业核心	Course category: Required Core Course
学 分: 3	Credit(s): 3
开课单位: 生物学院	Offering College/School: College of Biology

课程描述: 本课程是生物技术专业的专业核心课程,以生物化学、微生物学为前导课程,为发酵工程课程设计、生物技术综合大实验(酶工程部分)、发酵工程大实验等方面课程学习提供理论基础。

本课程主要包括酶与发酵工程基本原理、酶与发酵工程下游加工工程、酶与发酵工程工程生产设备、酶与发酵工程生产工艺和产品举例等四大部分内容,要求学生了解酶工程与发酵工程的发展现状,理解酶与发酵的生产方式、工艺的调控模式以及相关的基本设备,掌握酶与发酵工程的基本原理、基本技术和基本方法。通过学习本课程,学生不仅将学会酶与发酵工程的基本原理,还能灵活运用这些基本理论去分析和解决生产过程中的具体问题,改造原有生产过程使其更符合客观规律,提高生产过程的经济和社会效益。

Course description: This course is a core course for majors of biotechnology. It requires biochemistry and microbiology as the prerequisite courses, and will provide theory supports for the following course, such as curriculum designs of fermentation engineering, comprehensive experiments of biotechnology (part of enzyme engineering) and experiments of fermentation engineering.

This course mainly includes basic principles, downstream processing engineering, production equipment, and samples of production process and product. After attending of this course, students are required to learn the development of this subject, to understand the regulatory patterns, production method, process and related basic equipment of enzyme and fermentation engineering, to master the basic principles, basic technology and basic methods of enzyme and fermentation engineering. Besides, this course also train students to solve practical problems based on the knowledge, thus to improve economic and social benefits of produce process applying appropriate technology.

编 码: BS05025	Code:BS05025
课程名称: 细胞工程	Course Title:Cell Engineering
课程类别: 专业核心	Course category:Required Core Course
学 分: 3	Credit(s):3
开课单位: 生物学院	Offering College/School:College of Biology

课程描述: 细胞工程课程是生物技术和生物医学工程专业的专业核心课程,以分子生物学、遗传学、细胞生物学、免疫学、生物化学等为前导课程,为生物技术专业就业和深造提供直接面对应用的专业知识和专业技能。细胞工程(CellEngineering)是生命科学领域的一个重要分支,同时也是现代生物学研究的重要技术工具。细胞工程是现代生物技术的基础和公用平台,也是应用最广泛的实用生物技术。本课程以细胞工程的基本原理介绍为切入点,以不同类型的技术范畴为骨架,组成课程的基本框架。课程共分为三个部分,包括细胞工程的基础知识、动物细胞工程和植物细胞工程。本课程对这些领域进行较为详细的介绍。本课程对学生达到毕业要求有如下贡献:1、学生了解细胞工程的发展趋势和在国民经济中的地位,理解细胞工程的普遍原理和技术手段,掌握细胞工程的各种核心技术和应用原理,并能灵活运用细胞工程的原理和技术手段解决实际问题。2、通过学习本课程,学生学会大量的在生物技术产业中应用的细胞工程技术和原理,获得将生物学基础知识转化为生产力的手段,锻炼和提升将理论应用到实际的能力,独立思考解决实际问题的能力,甚至是独立创业的能力等。3、通过本课程的学习,使学生初步掌握植物、动物细胞细胞工程的的基本原理和技术,同时了解细胞工程技术在前沿研究、医药业和农业等方面的应用。培养学生在学习过程中发现问题和灵活应用所学知识解决问题的能力,为以后的深造和工作夯实基础。

Course description: Cell engineering, an important branch of life science, applies the principles and methods of engineering to the problems of cell and molecular biology of both a basic and applied nature. It is the foundation and public platforms of modern biotechnology and has been regarded as one of the most widely used practical biotechnology. This course introduces the basic principles of cell engineering as an entry point, and gradually elaborates the details of technologies which are divided into several parts according to their type. Hence, this course includes three parts, which are basics of cell engineering, animal cell engineering and plant cell engineering. After training with this course, students could understand both the principles and technical details of cell engineering, which could potential used in their own career in the future. This course will help students to build up their ability to find questions independently and flexibly apply the knowledge they learned from this course to solve them.

编 码: BS05026	Code:BS05026
课程名称: 基因工程**	Course Title:Genetic Engineering **
课程类别: 专业核心	Course category:Required Core Course
学 分: 3	Credit(s):3
开课单位: 生物学院	Offering College/School:College of Biology

课程描述: 本课程是生物技术和生物医学工程专业的专业核心课程, 以《生物化学》为前导课程, 为蛋白质工程与蛋白质组学、细胞工程、酶与发酵工程等方面课程学习提供理论和技术基础。本课程主要包括基因克隆和 DNA 分析的基本原理、基因克隆载体、DNA 纯化、DNA 分子操作等内容, 学生需了解基因工程的发展历史, 理解基因克隆、PCR 和 DNA 分析的技术原理, 掌握基因工程相关的主要概念和技术方法, 并能将之灵活运用在基因和基因组研究、生物医学和农业等领域。通过学习本课程, 学生学会基因克隆和 DNA 分析等技术, 获得操作 DNA 的方法, 锻炼和提升遗传物质分析、蛋白质制造和生物性状改造的能力, 使学生掌握基因工程这一用于生命科学基础研究和技术开发的核心专业技能。

Course description: This is a specialized education course for students of biotechnology and biomedical engineering majors and its prerequisite course is Biological Chemistry. The course provides theoretical and technical foundations for taking courses such as Protein Engineering and Proteomics, Cell Engineering, and Enzyme engineering and Fermentation engineering. The course will cover the basic principles of gene cloning and deal with how DNA is analyzed. We will look at the central component of a gene cloning experiment — the vector — which transports the gene into the host cell and is responsible for its replication. We will teach how DNA is purified from living cells and the various techniques for handling purified DNA molecules in the laboratory. We will also explore the history and applications of gene cloning and PCR in the gene and genome studies and in modern biology such as biotechnology, medicine, and agriculture. Through this course, students will learn how to perform the experiments of gene cloning, PCR, and other DNA analysis and gain the ability of DNA manipulation, which is the core technique for genetic material analysis, protein engineering, and genetic modification, useful for basic research of life sciences and biotechnology.

编 码: BS05027**Code:**BS05027**课程名称:** 蛋白质工程与蛋白质组学***Course Title:**Protein Engineering and Proteomics ***课程类别:** 专业核心**Course category:**Required Core Course**学 分:** 3**Credit(s):**3**开课单位:** 生物学院**Offering College/School:**College of Biology

课程描述: 这是一门为生物专业学生开设的专业核心课,以生物化学,分子生物学和基因工程为前导课程,为科研时间和毕业论文提供理论基础。本课程主要包括:蛋白质工程与蛋白质组学的基本概念和特点;蛋白质的样品制备;各种分析鉴定方法;蛋白质与蛋白质互作研究方法;蛋白质生物信息学;蛋白质分子设计、修饰和表达等方面。通过该课程的教学使学生能够掌握蛋白质工程与蛋白质组学的基本概念、研究内容和研究基本方法,了解蛋白质工程与蛋白质组学研究的最新成果及其在生命科学中的应用,为进一步从事蛋白质功能研究及农业、医药等应用领域研究打下基础。

Course description: This is a core course for biology majors, taking Biological Chemistry, Molecular Biology and Gene Engineering as pre-requisite. The main contents of this course are the basic concepts in protein engineering and proteomics, protein sample preparation techniques, protein identification, protein-protein interaction, bioinformatics analysis , protein design and modification. Through this course, students would gain mastery of the protein engineering and proteomics framework involving background, fundamental concept, content, and research methods. The study of this course also allows student to approach the applications and advanced progress of protein engineering and proteomics, thus laying a foundation for their work on protein function study and work in the fields of medicine and agriculture.

编 码: BS05028**Code:**BS05028**课程名称:** 生物信息学**Course Title:**Bioinformatics**课程类别:** 专业核心**Course category:**Required Core Course**学 分:** 3**Credit(s):**3**开课单位:** 生物学院**Offering College/School:**College of Biology

课程描述: 生物信息学利用应用数学、信息学、统计学和计算机科学的方法研究生物学的问题。目前的生物信息学基本上只是分子生物学与信息技术（尤其是互联网级数）的结合体。生物信息学的研究材料和结果就是各种各样的生物学数据，其研究工具是计算机，研究方法包括对生物学数据的搜索（收集和筛选）、处理（编辑、整理、管理和显示）及利用（计算、模拟）。目前主要的研究方向有：序列比对、基因识别、基因重组、蛋白质结构预测、基因表达、蛋白质反应的预测，以及建立进化模型。

Course description: Bioinformatics using applied mathematics, information science, statistics and computer science method to study the problem of the biology. The current bioinformatics is basically molecular biology and information technology, (especially the Internet series). Bioinformatics research materials and the result is a variety of biological data, the research tool is a computer, the research methods including the search for biological data (collection and screening), processing (edit, organize, manage and display) and using (calculation and simulation). The main research direction includes: the sequence alignment, gene identification, gene recombination, protein structure prediction, gene expression, predicting response of protein, and to establish the evolution model.

编 码: BS05029	Code: BS05029
课程名称: 生物医学材料	Course Title: Biomedical Materials
课程类别: 专业核心	Course category: Required Core Course
学 分: 3	Credit(s): 3
开课单位: 生物学院	Offering College/School: College of Biology

课程描述: 本课程是生物医学工程专业的专业核心课程,以细胞生物学、生物化学、人体解剖生理学为先导课程,为生物医学材料在临床应用方面课程学习提供理论知识和研究基础。

本课程主要包括生物医学材料导论、金属植入与替代材料、陶瓷植入与替代材料、高分子植入与替代材料、组织工程材料、软组织替代与修复和硬组织替代与修复等内容,学生需要了解生物医学材料相关的基本概念和基本理论,掌握生物医用材料的分类、基本概念、性能特点、生物相容性等基础知识,了解生物医学材料在组织器官替代修复、组织工程支架和组织诱导、药物控释等领域的研究和应用前景,并能灵活运用于生物医学领域中。通过学习本课程,学生学会生物医学材料的基础知识及相关材料性能特点,获得理论与实际相结合的研究思想,锻炼和提升学习涉及多学科交叉融合的课程的能力,为构筑学生知识结构和有志从事科学和技术研究的学生打下重要基础。

Course description: This course is the specialized core course designed for students with the major in biomedical engineering. It is better for student to learn cell biology, biochemistry, human anatomy and physiology before learning this course. The aim of this course is to provide theoretical knowledge for the clinical applications of biomedical materials.

The content of this course mainly constitute by the introduction of biomedical materials, metal implanted and alternative materials, ceramic implanted and alternative materials, polymer implanted and alternative materials, tissue engineering material, replacement and repair of soft tissue and hard tissue. Students were required to know the basic conceptions and theories, to understand the classification, conceptions and characteristics of biomedical materials, as well as their biocompatibility. After learning this course, students could know their basic research and clinical application, as well as the intriguing prospects of biomedical materials in the fields of tissues and organs replacement and repair, tissue engineering scaffolds and drug-controlled release. Meanwhile, this course provides good demonstration on the perfect combination of basic conceptions and clinical applications of biomedical materials. In addition to improve the learning ability on multidisciplinary field, this course also help to construct knowledge structures and give an essential foundation to students those who would like to dedicate themselves to biomedical materials research in the future.

编 码: BS05030**Code:**BS05030**课程名称:** 组织工程学**Course Title:**Tissue Engineering**课程类别:** 专业核心**Course category:**Required Core Course**学 分:** 3**Credit(s):**3**开课单位:** 生物学院**Offering College/School:**College of Biology

课程描述: 《组织工程学》是应用细胞生物学、生物材料和工程学的原理, 研究开发用于修复或改善人体病损组织或器官的结构、功能的生物活性替代物的一门科学。通过该课程的讲授, 使学生了解组织工程学的基本原理、研究现状和面临的主要问题。学习组织工程材料设计的基本思路, 材料与细胞的相互作用, 细胞的调控以及如何于临床实践相结合。本课程重点讲授组织工程学的基本原理; 组织工程三元素包括细胞、材料和调控因子以及三元素之间的相互作用和优化; 组织再生的原理和检测方法。

Course description: The purpose of the module is to equip multi-disciplinary undergraduate students with biomaterials science and tissue engineering knowledge. This will involve building on existing undergraduate knowledge in basic engineering sciences and applying it to clinical applications of biomaterials/ tissue engineering relevant to the healthcare environment. The module will introduce students to the biomaterials and tissue engineering from processing routes to medical applications with an emphasis on synthetic or natural biomaterials and bone (hard) tissue engineering.

编 码: BS05031

Code:BS05031

课程名称: 生物医学影像与图像处理

Course Title:Biomedical Imaging and Imaging Processing

课程类别: 专业核心

Course category:Required Core Course

学 分: 3

Credit(s):3

开课单位: 生物学院

Offering College/School:College of Biology

课程描述: 本课程是生物医学工程专业的专业核心课程，以解剖生理，计算机基础为前导课程。医学影像学在临床的应用上非常广泛，对疾病的诊断提供了很大的科学和直观的依据，可以更好的配合临床的症状、化验等方面，为最终准确诊断病情起到不可替代的作用；同时治疗方面也有很好的应用。图像处理是使用计算机对图像进行一系列加工，以达到所需的结果。

Course description: Medical imaging is the technique, process and art of creating visual representations of the interior of a body for clinical analysis and medical intervention. Medical imaging seeks to reveal internal structures hidden by the skin and bones, as well as to diagnose and treat disease. Medical imaging also establishes a database of normal anatomy and physiology to make it possible to identify abnormalities.

编 码: BS05032

Code:BS05032

课程名称: 生物医学影像与
图像处理实验

Course Title:Biomedical Imaging and Imaging Processing
Experiment

课程类别: 专业核心

Course category:Required Core Course

学 分: 1

Credit(s):1

开课单位: 生物学院

Offering College/School:College of Biology

课程描述: 本课程是生物医学工程专业的专业核心课程，以解剖生理，计算机基础为前导课程。医学影像学在临床的应用上非常广泛，对疾病的诊断提供了很大的科学和直观的依据，可以更好的配合临床的症状、化验等方面，为最终准确诊断病情起到不可替代的作用；同时治疗方面也有很好的应用。图像处理是使用计算机对图像进行一系列加工，以达到所需的结果。

Course description: Medical imaging is the technique, process and art of creating visual representations of the interior of a body for clinical analysis and medical intervention. Medical imaging seeks to reveal internal structures hidden by the skin and bones, as well as to diagnose and treat disease. Medical imaging also establishes a database of normal anatomy and physiology to make it possible to identify abnormalities.

编 码: BS05033**Code:**BS05033**课程名称:** 遗传学 A****Course Title:**Genetics A ****课程类别:** 专业核心**Course category:**Required Core Course**学 分:** 3**Credit(s):**3**开课单位:** 生物学院**Offering College/School:**College of Biology

课程描述: 遗传学是为我校生物医学工程专业学生开设的专业核心课,以普通生物学和生物化学和为前导课程,为后续生物相关专业选修课程学习提供基础知识。本课程主要包括经典遗传学、细胞遗传学、分子遗传学和数量性状遗传等遗传学分支的内容,学生需了解遗传物质的本质、遗传物质的传递、遗传物质的变异等基本遗传学知识,理解生物遗传和变异的基本规律及其本质,掌握遗传学的基本概念、基本研究方法,并能灵活运用所学的基本原理分析遗传学数据,解释遗传学现象。通过学习本课程,学生学会遗传学的基本规律,获得运用所学的基本理论和实验技能说明和解决有关遗传学问题的方法和技术,锻炼和提升联系育种和医疗实践解决实际问题的能力。

Course description: Genetics is one of the core courses required for the Undergraduate Biomedical Engineering major. The pre-requisites for this class include General biology and Biochemistry, and this course will provide the prerequisite knowledge for subsequent biology related elective courses. This course covers topics in multiple modern Genetics branches, including transmission genetics, cytogenetics, molecular genetics and quantitative-trait genetics. Students are expected to learn the basic genetic knowledge, such as the nature of genetic materials, the transmission of genetic materials, the variation of genetic materials, to understand the basic principles of heredity and variation, to master the basic genetics concepts and research methods, and to use these knowledge for analyzing genetic data and interpreting genetic phenomena. By studying this course, students will not only learn the basic genetic principles, but also acquire methods and techniques for solving genetic problems by using basic genetic theory and experimental skills, as well as promote their abilities of solving practical issues in agricultural breeding and medical practice.

编 码: CH05040**Code:**CH05040**课程名称:** 生物化学**Course Title:**Biochemistry**课程类别:** 专业核心**Course category:**Required Core Course**学 分:** 3**Credit(s):**3**开课单位:** 生物学院**Offering College/School:**College of Biology

课程描述: 这是一门为化学专业学生开设的专业核心课,前导课程为分析化学和有机化学,通过该课程的学习使学生掌握现代生物化学的基本理论、基本知识,为学生学习相关后续专业课程,如生物化工、生物材料等,打下坚实基础。通过生物化学的整个教学过程逐渐培养学生分析问题、概括问题的能力,培养学生从分子水平认识生命现象的能力与技术,对专业学习、实践过程中出现的生物化学现象能予以理解和利用;主要内容为生物化学的基本方法和基本原理,具体包括:蛋白质、酶、核酸等生物大分子的结构、性质及功能;物质代谢途径;遗传信息的储存、传递和表达等。

Course description: This is a key course for majors of chemistry with analytical chemistry and organic chemistry, aiming at the students' mastery of the basic concepts and theories of biochemistry. Emphasis is placed on the biological and chemical backgrounds of biological macromolecular (i.e. protein, carbo-hydrate, enzymes and nucleic acids) with an emphasis on the structure, function, and properties, understanding of the types, characteristics and functions of vitamins, antibiotics, hormone and biological membranes. The study of this course develops the students' ability to analyze and solve biotechnological problems, laying a solid foundation for their study of follow-up courses such as biochemical engineering, biological material.

编 码: CH05041**Code:**CH05041**课程名称:** 基础生物化学实验**Course Title:**Basic Biochemistry Experiment**课程类别:** 专业核心**Course category:**Required Core Course**学 分:** 1**Credit(s):**1**开课单位:** 生物学院**Offering College/School:**College of Biology

课程描述: 生物化学实验是一门为化学专业学生开设的核心课程, 前导课程为分析化学和有机化学, 随着生物化学的实验方法日趋专门化和复杂化, 牵涉到生物化学实验工作的领域也越来越多。生物化学实验已经成为生物技术领域内最基本的实验操作技能。本课程着眼于学生学习和掌握生物化学课程的基本理论、基本知识以及实验技能, 为专业课的学习和专业技能的培训奠定良好的基础, 培养学生具有初步的科学实验能力及严格的科学作风, 同时验证生物化学的某些基本理论知识, 加深感性认识, 并通过严格的实验要求和管理, 诱导和培养学生将所学知识和技能用于今后的社会实践及创新的思维方法和动手能力。

Course description: Experiments of Biochemistry is an key and experimental subject with analytical chemistry and organic chemistry .As the biochemistry experimental method has become increasingly specialized and complicated, involving the field of biochemistry experimental work is also more and more. Biochemistry experiment biotechnology field has become the most basic experiment skills. This course focuses on students' learning and mastering basic theories, basic knowledge of biochemistry course and experimental skills, for specialized course learning and professional skills training.

编 码: GE01039	Code: GE01039
课程名称: 思想道德修养与法律基础	Course Title: Moral Cultivation and Law Basics
	Course category: Required General Education Course
课程类别: 通识必修	Credit(s): 1.5+(1.5)
学 分: 1.5+(1.5)	Offering College/School: College of Marxism Studies
开课单位: 马克思主义学院	

课程描述: “思想道德修养与法律基础”是一门面向普通高校本科生的思想政治理论必修课。本课程以马克思列宁主义、毛泽东思想、邓小平理论和三个代表重要思想为指导,全面贯彻科学发展观,紧扣大学生成长中遇到的基本问题,有针对性地开展马克思主义人生观、价值观、道德观和法制观教育,引导大学生树立远大理想,陶冶高尚情操,遵循并传承中华民族的优秀道德传统,认同并弘扬改革开放的时代创新精神,建构高尚的思想品德、良好的法律素养、科学的价值标准与正确的行为规范,为他们逐渐成长为全面发展的社会主义事业的合格建设者和可靠接班人打下坚实的思想道德修养和法律修养的基础。本课程主要包括适应大学生活、理想信念、爱国主义、人生观、集体主义、文明礼仪、品德养成、择业观和法制观等教育教学内容。

Course description: It is a compulsory course of ideological and political theories catering to undergraduates in regular institutions of higher education. Guided by Marxism-Leninism, Maoism, Deng Xiaoping Theory and “Three Represents” Theory, the course comprehensively embodies the scientific outlook on development; carry out the education on life, value, morality and legal system of Marxism with the focus on problems arising during the growth of students; lead students to establish lofty ideal, cultivate good tastes, conform to and inherit the traditional morality, acknowledge and develop innovative spirit of reform and development, establish noble moral character, good legal sense, scientific value standard and correct behavior code, laying solid foundation of moral and legal cultivation for the students to become a qualified constructor and reliable successor for socialist cause. The course mainly covers adaption to college life, ideal & faith, patriotism, outlook on life, collectivism, civility, morality cultivation, outlook on job-seeking and legal concept.

编 码: GE01100**Code:**GE01100**课程名称:** 形势与政策**Course Title:**Current Situation and Policies**课程类别:** 通识必修**Course category:**Required General Education Course**学 分:** 0.5+(1.5)**Credit(s):**0.5+(1.5)**开课单位:** 马克思主义学院**Offering College/School:**College of Marxism Studies

课程描述: 《形势与政策》是一门以马克思列宁主义、毛泽东思想和中国特色社会主义理论为指导,以高校培养目标为依据,紧密结合国内外形势,紧密结合大学生的思想实际,对大学生进行比较系统的党的路线、方针和政策教育的思想政治教育课程。形势与政策课是高校思想政治理论课的重要组成部分,是对学生进行形势与政策教育的主渠道、主阵地,是每个学生的必修课程。《形势与政策》课程的基本任务是通过适时地进行形势政策、世界政治经济与国际关系基本知识的教育,帮助学生开阔视野,提升思想理论素养和政策水平;及时了解和正确对待国内外重大时事,使大学生在改革开放的环境下有坚定的立场、有较强的分析能力和适应能力。引导大学生思想统一、凝聚力量,坚定不移走中国特色社会主义道路,为全面建成小康社会和中华民族伟大复兴的“中国梦”而努力学习。

Course description: There is no contents at present.

编 码: GE01101	Code: GE01101
课程名称: 毛泽东思想和中国特色社会主义理论体系概论	Course Title: Introduction to Maoism and Theoretical System of Socialism with Chinese Characteristics
	Course category: Required General Education Course
课程类别: 通识必修	Credit(s): 3+(3)
学 分: 3+(3)	Offering College/School: College of Marxism Studies
开课单位: 马克思主义学院	

课程描述: “毛泽东思想和中国特色社会主义理论体系概论”课程(简称“概论”课),是根据 2005 年《<中共中央宣传部教育部关于进一步加强和改进高等学校思想政治理论课的意见>实施方案》而设置的一门思想政治理论课程。

本课程的教学目的在于,使学生对毛泽东思想和中国特色社会主义理论体系,有一个完整、准确和清晰的认识和了解,帮助学生系统掌握马克思主义中国化的形成发展、主要内容和精神实质,完整把握基本原理、基本观点和基本知识,不断增强道路自信、理论自信、制度自信。帮助大学生加深对党的基本理论、基本路线、基本纲领、基本经验、基本要求的理解和认识,增强大学生对党的路线方针政策的理解和认同。

通过学习,引导和帮助青年学生掌握马克思主义立场、观点和方法,树立正确的世界观、人生观和价值观,学会科学地认识和分析复杂的社会现象的能力;坚定建设中国特色社会主义的共同理想和信念,使毛泽东思想和中国特色社会主义理论体系深入学生头脑和心灵深处,并且内化为他们改造主观世界和客观世界的精神动力和力量源泉;坚定在党的领导下,坚持中国特色社会主义道路、坚持中国特色社会主义理论体系、坚持中国特色社会主义制度的理想信念。

Course description: Mao Zedong thought and the theoretical system of socialism with Chinese characteristics is an undergraduate course for ideological and political education. Let undergraduate students understand the basic theory of Mao Zedong thought and the theoretical system of socialism with Chinese characteristics.

编 码: GE01102	Code: GE01102
课程名称: 中国近现代史纲要	Course Title: Outline of Modern Chinese History
课程类别: 通识必修	Course category: Required General Education Course
学 分: 2	Credit(s): 2
开课单位: 马克思主义学院	Offering College/School: College of Marxism Studies

课程描述: 《中国近现代史纲要》是高等学校必修的思想政治理论课, 是对学生进行思想政治教育的重要内容。本课程主要讲授中国近代以来抵御外来侵略、争取民族独立、推翻反动统治、实现人民解放的历史进程。要求学生了解外国资本—帝国主义入侵中国及其与中国封建势力相结合给中华民族和中国人民带来的深重苦难, 了解近代以来中国所面临的争取民族独立、人民解放和实现国家富强、人民富裕这两项历史任务; 了解近代以来中国的先进分子和人民群众为救亡图存而进行的艰苦探索的历程及其经验教训; 联系新中国成立以后的国内外环境, 了解中国人民走上以共产党为领导力量的社会主义道路的历史必然性; 紧密结合中国近现代的历史实际, 通过对有关历史进程、事件和人物的分析, 提高运用科学的历史观和方法论分析历史问题、辨别历史是非的能力; 思考在新的历史条件下, 作为对祖国现代化建设负有重大责任的新一代, 应如何将这种精神发扬光大。从而加深学生对我国近现代国情的了解, 增强学生的爱国情感和建设社会主义现代化强国的使命感!

Course description: “The outline of modern history of China” is a compulsory course of Ideological and political theory in Colleges and universities. It is an important content of Ideological and political education for students. This course mainly teaches the history of resisting aggression, fighting for independence, and the overthrow of the reactionary rule and the liberation of the people. Students are required to understand the foreign capital - imperialist invasion China and Chinese feudal forces combination brings to the Chinese nation and Chinese people suffering, understanding of modern Chinese faced the struggle for national independence, people's Liberation and prosperity of the country, wealthy people of these two historical tasks; understand the course of hard exploration of advanced molecular China and people in order to save the country and the people in modern times and its lessons; contact after the new Chinese established domestic and international environment, to understand the historical inevitability of the China people onto the Communist Party as the leading force of the socialist road; combined with China modern history, through the analysis on the course of history, people and events, improve the use of the scientific view of history and methodology of history, history is not the problem of discrimination ability in the new thinking; Under the historical conditions, as a new generation of great responsibility for the construction of the motherland's modernization, how should this spirit carry forward. So as to deepen the students' understanding of the situation of our country, strengthen the students' patriotic feelings and the construction of the socialist modernization power of the mission!

编 码: GE01103

Code:GE01103

课程名称: 马克思主义基本
原理(上)

Course Title: Fundamentals of Marxism I

Course category: Required General Education Course

课程类别: 通识必修

Credit(s): 2

学 分: 2

Offering College/School: College of Marxism Studies

开课单位: 马克思主义学院

课程描述: 本课程旨在帮助学生从整体上把握马克思主义基本理论, 从而把握人类社会发展的基本规律, 以确立正确的世界观和人生观。教学内容主要有: 物质世界及其发展规律; 认识世界和改造世界的规律; 人类社会及其发展规律。

Course description: By putting across Marxism's world outlook and methodology, this course is to help students get a notion of the basic principles of Marxism as a whole and get to know the fundamental rules of the development of human society, so as to help them establish correct outlooks for the world, life and value, and become a qualified builder as well as successor of our socialism course.

编 码: GE01104

Code:GE01104

课程名称: 马克思主义基本
原理(下)

Course Title:Fundamentals of Marxism II

Course category:Required General Education Course

课程类别: 通识必修

Credit(s):2

学 分: 2

Offering College/School:College of Marxism Studies

开课单位: 马克思主义学院

课程描述: 本课程旨在帮助学生从整体上把握马克思主义基本理论, 从而把握人类社会发展的基本规律, 以确立正确的世界观和人生观。教学内容主要有资本主义和社会主义发展规律; 共产主义与人的自由全面发展规律。

Course description: By putting across Marxism's world outlook and methodology, this course is to help students get a notion of the basic principles of Marxism as a whole and get to know the fundamental rules of the development of human society, so as to help them establish correct outlooks for the world, life and value, and become a qualified builder as well as successor of our socialism course.



编 码: JM03013

Code:JM03013

课程名称: 社会心理学

Course Title:Social psychology

课程类别: 学门核心

Course category:Introductory Major Course

学 分: 2

Credit(s):2

开课单位: 马克思主义学院

Offering College/School:College of Marxism Studies

课程描述: 该课程是一门理论性较强的应用性课程。通过本课程的教学, 帮助学生了解社会心理的本质及其一般规律, 使之能初步分析社会心理现象, 并利用社会心理学原理和方法去处理现实生活中的一些问题, 从而提高社会适应心理水平。

主要教学内容: 绪论; 社会化; 自我意识; 社会认知; 社会态度; 人际关系与人际沟通; 大众心理与行为。

Course description: Featuring in strong theoretical teaching, this course is also an application-oriented one. After following the curriculum, students will understand the essence and general laws of Social Psychology and be able to do preliminary analysis of different social psychological phenomena. By referring to the principles and methods advocated by Social Psychology, students will be capable to cope with some realistic problems, thereby better adapting to the society.

Teaching Content: Introduction; Socialization; Self –awareness; Social Cognition; Social attitudes: Human relations and interpersonal communication; Public mentality and behaviors.

编 码: LA03013**Code:**LA03013**课程名称:** 逻辑学**Course Title:**Logistics**课程类别:** 学门核心**Course category:**Introductory Major Course**学 分:** 2**Credit(s):**2**开课单位:** 马克思主义学院**Offering College/School:**College of Marxism Studies

课程描述: 在学习思维形式的逻辑结构和逻辑规律的基础上, 探讨法律领域中特有逻辑现象和逻辑问题, 提高法学专业学生和法律实践工作者运用法律逻辑解决实际问题的能力。主要讲解法律概念、法律判断、法律推理、法律论证、逻辑思维的基本规律在法律中的运用, 锻炼学生运用逻辑思维进行法律实务的能力。

Course description: On the basis of learning logic thinking forms and logical structure , students of law school reseach the special logic in law field and logic problems. We can improve the legal science specialized students legal logic and law ability to solve practical problems. The project covers legal concepts, legal judgment, legal reasoning, legal reasoning, logical thinking to application of the law, the basic rules of exercise students using logical thinking ability of law practice.

编 码: JM03014**Code:** JM03014**课程名称:** 西方哲学史**Course Title:** A history of Western philosophy**课程类别:** 学门核心**Course category:** Introductory Major Course**学 分:** 3**Credit(s):** 3**开课单位:** 马克思主义学院**Offering College/School:** College of Marxism Studies

课程描述: 本课程是新闻传播专业核心课程,以马克思主义基本原理概论为前导课程,为新闻法规与媒介伦理等方面课程学习提供理论基础和方法论指导。

本课程教学内容:按照时间序列,跟随哲学家们的问题,熟悉其概念,遵循他们的思路,理解他们的思想,从古代哲学、中古哲学、近代哲学、现代哲学四大部分介绍西方哲学史这一个丰富的思想体系。

本课程教学目的:通过西方哲学的教学,使学生了解西方哲学的基本概况及其演变历史,帮助学生理解重要哲学家及其代表性的思想,培养基本的哲学素养,增强问题意识,提高思辨能力和分析问题的能力。

Course description: This course is a core course of the Journalism. Marx's basic theory is the leading course, which provides theoretical basis and methodological guidance for the study of the theory and methodology of Journalism and media ethics.

Teaching content: according to the time series, the problems of the philosophers, the concepts of the philosophers, following their ideas, understand their ideas, from the ancient philosophy, medieval philosophy, modern philosophy to Contemporary philosophy which are the four parts of the western philosophy of this rich ideological system.

Teaching objective: this course is to make students understand the basic situation of western philosophy and its evolution history, and help students understand the important philosophers and their representative ideas, develop the basic philosophical literacy, enhance the awareness of the problem, improve the ability of thinking and analysis.

编 码: GE01089(-92)	Code:GE01089(-92)
课程名称: 体育	Course Title:Physical Education
课程类别: 通识必修	Course category: Required General Education Course
学 分: 4	Credit(s):4
开课单位: 体育学院	Offering College/School:College of Physical Education

课程描述: 此课程为我校对一、二年级学生所开设的体育必修课程。学生入校后根据自己的兴趣爱好, 体育基础、体育特长选择某一运动项目进行学习和锻炼。通过两年的选项课程学习, 学生能较好掌握该运动的基本知识和基本技能, 为终身体育奠定基础。开设选项体育课, 有利于培养学生的个性, 发展学生的运动能力, 增强学生的体育意识, 有利于学生终生体育观念和锻炼习惯的养成。我校目前开设选项体育课的项目有: 男女篮球、男女排球、男子足球、男女乒乓球、男女羽毛球、男女网球、男女田径健身、男女游泳、男女武术、女生功夫扇、女生形体、女生健美操、男女跆拳道、瑜伽、垒球、散打、体育舞蹈、男子器械健身、男女定向运动、体育保健及棋牌类等课程。

Course description: The course is a compulsory course for the students of grade one and grade two. Students choose a sports project for learning and training according to their own hobbies, physical conditions and sports specialties when they enter the university. Students can better grasp the basic knowledge and skills of the sports project through the two years of course learning so as to establish the foundation for lifelong physical exercise. Physical education is beneficial for cultivating students' personality, developing students' exercise capacity, strengthening students' sports consciousness, and helpful to establish the lifelong sports concept and form the exercise habit. Our school currently offers compulsory sports courses as: men's and women's basketball, men's and women's volleyball, men's soccer, men and women's table tennis, men's and women's badminton, men's and women's tennis, men's and women's track and field sports, men's and women's swimming, men's and women's martial arts, women's kung fu fan, women's figure exercise, women's gymnastics, men's and women's Taekwondo, yoga, softball, free combat, sports dance, men's apparatus fitness, men's and women's directional movement, health care, chess and card, etc.

编 码: PA04010	Code:PA04010
课程名称: 心理学导论	Course Title:Introduction to Psychology
课程类别: 学类核心	Course category: Major Survey Course
学 分: 2	Credit(s):2
开课单位: 教育科学研究院	Offering College/School: Institute of Education Sciences

课程描述: 本课程是行政管理专业学类核心课程, 设立本课程是让学生理解、领会心理学的基本知识领域和基本规律, 并能实际运用心理学的基础知识和基本规律解决现实生活及未来生涯发展中遇到的问题。

本课程主要包括心理学概述、人格心理学、社会心理学、认知心理学、发展心理学、管理心理学、心理健康与心理咨询、人事测评等内容, 学生需了解心理学的基本知识体系, 理解心理学研究的基本逻辑和主要规律, 掌握人事测评等方面的基本技能, 并能灵活运用心理学知识与规律解决实际生活中遇到的问题, 通过学习本课程, 学生学会心理学是什么、研究什么、怎么研究以及最主要的基本研究结论或规律是什么, 获得有关心理学本门学科思考问题的基本逻辑, 量化研究思想及探索性思维将得到锻炼和提升, 而运用心理学知识和规律解决实际问题的能力也将得到升华。

Course description: 《Introduction to Psychology》is a core subject for the students studied in Public Administration. The aim of opening this subject is including the following two main aspects: (1) understanding and perceiving the knowledge domains and basic rules in Psychology; (2) solve life problems applying basic psychological knowledge and psychological rules.

The main content of this subject will include introduction to psychology, personality, social psychology, developmental psychology and so on. The students participating in this subject should learn to the basic psychological knowledge and also can apply the knowledge in their real life.

编 码: GE01107(-13) **Code:**GE01107(-13)
课程名称: 心理素质与生涯发展 **Course Title:** Psychological Health & Career Planning
课程类别: 通识必修 **Course category:** Required General Education Course
学 分: 1 **Credit(s):** 1
开课单位: 学生工作部 **Offering College/School:** Department of Student Affairs

课程描述: 《心理素质与生涯发展》课程是集心理健康与生涯发展知识传授、心理体验与实践训练为一体的必修课程。课程贯穿大学三个学年六个学期，根据大学生身心发展特点和生涯发展任务，采取心理素质模块课程讲授和生涯发展模块专题讲座相结合的方式，运用课程讲授和专题讲座大班教学和实践教学小班辅导教学手段，引导学生全面提升个体心理素质，提高生涯规划与职业发展能力。

Course description: The course is compulsory course which is a collection of knowledge teaching, psychological experience and practical training as one in the mental health and career development. The course through the 3 years and 6 semesters, which based on the characteristics of college students' physical and mental development and career development tasks. Therefore, the course is a combination of two module courses, the classroom instruction about psychological and the lecture about career development. On the one hand, the classroom instruction and lecture is the implementation of large classroom teaching; On the other hand, the small classes counseling teaching is carry out the practical teaching. From the above, the course will guide students to improve individual psychological quality and the ability of career planning and career development.

