

信息管理与信息系统专业简介

Introduction to the Specialty of Information Management and Information System

中文简介：

信息管理与信息系统专业，本科学制 4 年，专业属性为非师范专业。本专业始建于 2001 年，是集计算机科学与技术、管理学和经济学相交叉的新兴应用型专业，是我校计算机科学学院特色本科专业之一。目前，信息管理与信息系统专业在职专任教师 15 人，其中教授 3 人，副教授 5 人，任课教师均具有博士学位或硕士学位，拥有本科计算机实验室陕西省实验教学示范中心，以及长期合作关系的省内外多个专业实习基地。

英文简介：

The specialty of Information Management and Information System, which is 4 years full time undergraduate study, is specialized in non-teaching-training. This specialty was established in 2001, and is an emerging application specialty, covering Computer Science and Technology, Management and Economics. It is featured as one of the characteristic specializations at the School of Computer Science. Currently, there are 15 faculty members, including 3 professors and 5 associate professors. All faculty members hold Ph. D degree or master's degree. The undergraduate computer lab for practice is certificated as Shaanxi provincial experimental teaching demonstration centre. And there is also a plurality of specialty practice bases with long-term partnership inside and outside the province.

信息管理与信息系统专业

Information Management and Information System Specialty

一、培养目标

I. Educational Objectives

以培养复合型应用人才为主要目标。该专业培养德、智、体、美全面发展，具备现代管理学理论基础、计算机科学技术知识及应用能力，掌握系统思想和信息系统分析与设计方法以及信息管理等方面的知识与能力的多层次复合型应用人才。毕业生能在国家各级管理部门、工商企业、金融机构、科研单位等部门从事信息管理以及信息系统分析与设计、实施管理和评价等方面的工作。

The main objective of Information Management and Information System Specialty is to cultivate compound application talents. This specialty aims to cultivate students to have a comprehensive moral, intellectual, physical and aesthetic development, have modern management theory, computer science and technology knowledge and application ability, establishing systematic understanding of information management and knowledge of information system analysis and design methods. Graduates will be able to work in information management, information system analysis and design, and management and evaluation in the areas of multiple-level of government departments, business enterprise, financial institutions, and scientific research units.

二、培养要求

II. Educational Requirements

1. 热爱中国共产党，热爱社会主义祖国；掌握马列主义、毛泽东思想、邓小平理论和“三个代表”重要思想；坚持科学发展观，具有科学的世界观、正确的人生观和价值观以及高尚的道德品质。

2. 能够综合掌握数学、计算机、管理学、信息管理与信息系统方面的基本理论和基础知识，具有较扎实的基础理论；掌握信息管理系统的分析方法、设计方法，具有信息组织、分析研究、传播与开发利用的基本能力，具有较强的知识水平和实际应用能力；大学英语达到国家规定的四级水平。

3. 能够综合运用所学知识分析和解决问题，胜任与本专业相关的工作，了解本专业及相关领域的发展动态，具有一定的科学研究和研发能力；熟练运用英语作为工作语言和获取信息的工具，掌握文献检索、资料查询、收集和编译的基本方法，开展业务工作。

4. 具有健康的体魄和一定的军事基本知识、基本技能，达到国家规定的《大学生体育合格标准》和军事训练标准；养成终生锻炼身体的习惯。

5. 具有良好的人文素质与科学素质，具有健全的人格和良好的心理素质，具有较强的创新精神和实践能力，成为德、智、体、美等全面发展的高素质人才。

1. Undergraduates should be of high civil quality. With a deep love for Chinese Communist Party and the socialist motherland, they should steadily accept the basic values of the Chinese nation and learn to behave by the corresponding codes of conduct. Undergraduates should build up noble moral accomplishment. They should develop a correct outlook of life and gracious humanistic literacy by inheriting excellent Chinese culture and absorbing advanced values and scientific concepts abroad to cultivate wholesome personality and sound psychological quality.

2. Undergraduates should have a master of basic principles and knowledge of mathematics, computer, management, information management and information system. They also should grasp information management system analysis methods and design approaches. Students should have fundamental capability

in terms of information organization, analysis, communication and development, and strong knowledge and practical application ability; and be proficient in university English of CET4.

3. Undergraduates should be able to use knowledge to analyze and solve problems, to be competent in relevant job, to understand specialty-related field development, and to have some scientific research ability. They also should be able to use English as working language as well as tools for acquiring information, to understand the basic method of document retrieval, data inquiry, collection and compilation to carry out the business work.

4. Undergraduates should have a healthy physique, some basic military knowledge and skills; meet the national standards of physical education and military training; develop lifelong exercise habits.

5. Undergraduates should have good characters and scientific literacy, sound personality and good psychological quality, strong innovative spirit and practical abilities, and can become high-quality talent with an all-round development of moral, intellectual, physical, and aesthetic.

三、主干学科

III. Core Disciplines

计算机科学与技术、管理学

Computer Science and Technology, Management Science

四、主干课程

IV. Main Courses

C 语言程序设计、数据库原理、面向对象程序设计、管理学基础、计算机组织与结构、经济学、操作系统、概率论与数理统计、信息管理学、计算机网络、会计学原理、管理信息系统、运筹学、电子商务、Web 信息系统设计与开发

Programming in C, Principles of Database System, Object-oriented Programming, Principles of Management, Computer Organization and Structures, Economics, Operating Systems, Probability and Statistics, Information Management, Computer Networks, Principles of Accounting, Management Information Systems, Operations Research, Electronic Commerce, Web-Based Information Systems Design and Development

五、学制及授予学位

V. Schooling System & Degree Granting

学制 4 年

Four years

管理学学士

Bachelor of Management

六、学分要求

VI. Total Credits

148 学分

148 credits

七、课程设置及学分、学时比例

VII. Course Settings and Percentage of Credits/Hours

课程类别 Course Catalogue		学分及比例 Credits and Percentage			
		学分 Cre.	小计 Sub-Total	占总学分比例 Percentage in Total Credits	小计 Sub-Total
通识教育模块 Liberal Studies Courses	通识教育必修课 Liberal Studies Compulsory Courses	34	42	23.0%	28.4%
	通识教育选修课 Liberal Studies Elective Courses	8		5.4%	
学科基础模块 Disciplinary Foundation Courses	相关学科基础课 Related Disciplinary Foundation Courses	13	24	8.8%	16.2%
	本学科基础课 Disciplinary Foundation Courses	11		7.4%	
专业课程模块 Specialized Courses	专业核心课 Specialized Compulsory Courses	51	72	34.5%	48.6%
	专业方向课 Specialized Restrictive Elective Courses	15		10.1%	
	专业拓展课 Specialized Non-restrictive Elective Courses	6		4.0%	
实践教学模块 Practice Work	必修课 Compulsory Courses	10	10-11	6.8%	6.8%
	选修课 Elective Courses	0-1			
合计 Total			148	100%	
说明 Notes	<p>1. 专业必修课（包括学科基础课和专业核心课）共 22 门。 2. 专业选修课共 31 门，其中专业方向课 16 门，专业拓展课 15 门。本专业学生应从专业方向课中至少选修 15 学分，从专业拓展课中至少选修 6 学分。 3. 实验课程共 32 门，其中独立开设的实验课 1 门，既有理论又有实验的课程 22 门，含综合性、设计性实验的课程 9 门，占实验课程总数的 28%。 1. There are 22 Specialized Compulsory Courses (including Specialized Compulsory Courses and Disciplinary Foundation Courses). 2. There are 31 specialized elective courses, including 16 Specialized Restrictive Elective Courses and 15 Specialized Non-restrictive Elective Courses. Undergraduates of this specialty should obtain at least 15 credits by taking Specialized Restrictive Elective Courses and at least 6 credits by taking Specialized Non-restrictive Elective Courses. 3. There are 32 experimental courses, including 1 independent experimental course, 22 courses combined theory and experiment courses, and 9 theoretical and designable experimental courses which is 28% of the total experimental courses.</p>				

八、信息管理与信息系统专业本科教学计划表

VIII. Teaching Scheme for Information Management and Information System Undergraduate Candidates

(一) 通识教育模块 (42 学分)

(I) Liberal Studies Courses (42 credits)

1. 通识教育必修课 (34 学分)

1. Liberal Studies Compulsory Courses (34 credits)

课程编码 Courses Code	课程名称 Courses Name	开课学期 Semester	学分 Cre.	讲授学时 Teaching Hrs.	实验/实践学时 Experiment/ Training Hrs.	周学时 Weekly Hrs.	考试方式 Evaluation
1711001	思想道德修养与法律基础 The Ideological and Moral Cultivation and Fundamentals of Law	1	3	36	18	3	考试 Exam.
1711002	中国近现代史纲要 Outline of Modern and Contemporary Chinese History	1	2	27	9	2	考试 Exam.

1711003	马克思主义基本原理概论 Principles of Marxism	3	3	36	18	2	考试 Exam.
1711004	毛泽东思想和中国特色社会主义理论体系概论 Mao Zedong Thoughts and Theory of the Socialism with Chinese Characteristics	4	6	72	36	4	考试 Exam.
1711005-1 711011	形势与政策 1-7 The Current Situation and Policy(1-7)	1-7	2				考查 Quiz
0211012	大学语文(理、艺、体) College Chinese (for Science, Art and P.E. Specialties)	2	2	36		2	考试 Exam.
0411046	大学外语(一) College English 1	1	3	36	36		考试 Exam.
0411047	大学外语(二) College English 2	2	3	36	36		考试 Exam.
0411048	大学外语(三) College English 3	3	3	36	36		考试 Exam.
0411049	大学外语(四) College English 4	4	2	36			考试 Exam.
0411050	外语综合应用能力培训 Integrated Skills of Foreign Languages	4	1		36		考试 Exam.
1011039	大学体育(一) Physical Education 1	1	1	36			考试 Exam.
1011040	大学体育(二) Physical Education 2	2	1	36			考试 Exam.
1011041	大学体育(三) Physical Education 3	3	1	36			考试 Exam.
1011042	大学体育(四) Physical Education 4	4	1	36			考试 Exam.

2. 通识教育选修课(8学分)

2. Liberal Studies Elective Courses (8 credits)

通识教育选修课共8学分, 详见《陕西师范大学通识教育选修课课程方案》。

Undergraduates will obtain 8 credits by taking liberal studies elective courses, *see Liberal Studies Elective Courses Scheme of Shaanxi Normal University.*

(二)学科基础模块(24学分)

(II)Disciplinary Foundation Courses (24 credits)

1. 相关学科基础课(13学分)

1. Related Disciplinary Foundation Courses (13 credits)

课程编码 Courses Code	课程名称 Courses Name	开课学期 Semester	学分 Cre.	讲授学时 Teaching Hrs.	实验/实践学时 Experiment/ Training Hrs.	周学时 Weekly Hrs.	考试方式 Evaluation
1221006	高等数学(一) Advanced Mathematics 1	1	4	72	0	4	考试 Exam.
1221009	线性代数 Linear Algebra	1	3	54	0	3	考试 Exam.
1221008	高等数学(二) Advanced Mathematics 2	2	3	54	0	3	考试 Exam.
1221011	离散数学 Discrete Mathematics	2	3	54	0	3	考试 Exam.

2. 本学科基础课(11学分)

2. Disciplinary Foundation Courses (11 credits)

课程编码 Courses Code	课程名称 Courses Name	开课学期 Semester	学分 Cre.	讲授学时 Teaching Hrs.	实验/实践学时 Experiment/ Training Hrs.	周学时 Weekly Hrs.	考试方式 Evaluation
1222032	计算机学科导论 Introduction to Computer Science	1	1	18	16	4	考查 Quiz.
1222999	C 语言程序设计 Programming in C	1	5	72	36	4	考试 Exam.
1222031	数据结构与算法 Data Structures and Algorithms	3	5	72	36	4	考试 Exam.

(三) 专业课程模块 (72 学分)

(III) Specialized Courses (72 credits)

1. 专业核心课程 (51 学分)

1. Specialized Compulsory Courses (51 credits)

课程编码 Courses Code	课程名称 Courses Name	开课学期 Semester	学分 Cre.	讲授学时 Teaching Hrs.	实验/实践学时 Experiment/ Training Hrs.	周学时 Weekly Hrs.	考试方式 Evaluation
1241405	面向对象程序设计 Object-oriented Programming	2	4	54	36	3	考试 Exam.
1241409	数据库原理 Principles of Database System	2	4	54	36	3	考试 Exam.
1241021	经济学 Economics	3	3	54	0	3	考试 Exam.
1241422	管理学基础 Basic of Management	3	3	54	0	3	考试 Exam.
1241036	计算机组织与结构 Computer Organization and Structures	3	4.5	72	18	4	考试 Exam.
1241023	概率论与数理统计 Probability and Statistics	4	3	54	0	3	考试 Exam.
1241301	信息管理学 Information Management	4	3	54	0	3	考试 Exam.
1241408	操作系统 (一) Operating Systems 1	4	3.5	54	18	4	考试 Exam.
1241415	计算机网络 Computer Networks	4	4.5	72	18	4	考试 Exam.
1241022	会计学原理 Principles of Accounting	5	3	54	0	3	考试 Exam.
1241423	管理信息系统 Management Information Systems	5	4.5	72	18	4	考试 Exam.
1241424	运筹学 Operations Research	5	3	54	0	3	考试 Exam.
1241006	研究方法与学术论文写作指导 Research Methods and Academic Writing	6	1	18	0	2	考查 Quiz
1241420	Web 信息系统设计与开发 Web-based Information System Design and Development	6	3	36	36	2	考试 Exam.
1241425	电子商务 Electronic Commerce	6	4	54	36	3	考试 Exam.

2. 专业方向课程 (15 学分)

2. Specialized Restrictive Elective Courses (15 credits)

课程编码 Courses Code	课程名称 Courses Name	开课学期 Semester	学分 Cre.	讲授学时 Teaching Hrs.	实验/实践学时 Experiment/ Training Hrs.	周学时 Weekly Hrs.	考试方式 Evaluation
信息系统开发与应用方向课程： Courses of Information System Development and Application Dimension							
1242443	应用统计学 Application Statistics	3	2.5	36	18	2	考试 Exam.
1242302	信息经济学 Information Economics	4	2	36	0	2	考试 Exam.
1242309	信息资源组织与管理 Information Resource Organization and Management	5	3	54	0	3	考试 Exam.
1242064	财务管理 Financial Management	6	3	54	0	3	考查 Quiz
1242445	ERP 原理及其应用 ERP and Application	7	2	36	0	2	考查 Quiz
信息系统创新人才方向课程： Courses of Information System Innovative Talents Dimension							
1242446	信息传播学 Dissemination of information	4	2	36	0	2	考查 Quiz
1242431	高级英语 Advanced English	5	3	54	0	3	考查 Quiz
1242450	操作系统（二） Operating Systems 2	5	3	54	0	3	考试 Exam.
1242447	高等数学(综合提高) Advanced mathematics (Comprehensive improvement)	6	3	54	0	3	考查 Quiz
1242448	高级数据结构 Advanced Data Structure	6	3	54	0	3	考试 Exam.
1242449	信息检索 Information retrieval	7	2.5	36	18	2	考查 Quiz
各方向共选课程： Courses of All Cultivation Dimensions							
1242430	数据库应用 Database applications	3	2	18	36	2	考查 Quiz
1242417	JAVA 语言程序设计 Programming in JAVA	4	3	36	36	2	考查 Quiz
1242427	可视化程序设计 Visual Programming	5	3	36	36	2	考查 Quiz
1242428	网络工程 Network Engineering Practice	5	3	36	36	2	考查 Quiz
1242442	信息系统分析与设计 Analysis and Design of Information Systems	6	3	36	36	2	考查 Quiz

3. 专业拓展课程（6 学分）

3. Specialized Non-restrictive Elective Courses (6 credits)

详见学院专业拓展课程。

See Specialized Non-restrictive Elective Courses of School of Computer Science.

（四）实践教学模块（10-11 学分）

(IV) Practice Work (10-11 credits)

1. 必修课（10 学分）

1. Compulsory Courses (10 credits)

课程编码 Courses Code	课程名称 Courses Name	开课学期 Semester	学分 Cre.	讲授学时 Teaching Hrs.	实验/实践学时 Experiment/ Training Hrs.	周学时 Weekly Hrs.	考试方式 Evaluation
2650101	军事理论与训练 Military Theory and Military Training	1	1				考查 Quiz
1250017	必读书目阅读 Required Readings		1				考查 Quiz
1250023	专业见习 Professional Visits	1-6	1				考查 Quiz
1250024	专业实习 Professional Practice	7	2				考查 Quiz
1250021	专业实践与社会调查 Professional Practice and Social Survey		1				考查 Quiz
1250022	科研训练 Scientific Research Training	3-6	1				考查 Quiz
1750013	大学生就业指导 College Students' Employment Guidance	6	1				考查 Quiz
1250025	毕业论文(设计) Graduation Thesis	7-8	2				考查 Quiz

2. 选修课 (1 学分)

2. Elective Courses(1credits)

课程编码 Courses Code	课程名称 Courses Name	开课学期 Semester	学分 Cre.	讲授学时 Teaching Hrs.	实验/实践学时 Experiment/ Training Hrs.	周学时 Weekly Hrs.	考试方式 Evaluation
1750016	大学生职业生涯规划 Career Development and Planning	2	1				考查 Quiz

九、课程简介

IX. Brief Introduction of Main Courses

(一) 学科基础模块 (Disciplinary Foundation Courses)

1. 课程名称: 高等数学 (一) / (二)

(1) 课程编码: 1221006/1221008

(2) 课程简介: 该课程是计算机科学与技术各专业的一门重要基础课, 也是学习本专业后续课程的基础课之一。主要内容包括: 函数, 极限, 连续和导数; 求导法则; 导数和微分的应用; 一元函数的积分及应用; 积分方法; 常微积分方程初步; 空间解析几何与向量代数; 无穷级数; 多元函数偏导数; 多重积分。

1. Course Name: Advanced Mathematics 1/2

(1) Course Code: 1221006/1221008

(2) Brief Introduction to the Course: It is a specialized foundation course for computer science and technology majors and is also one of the basic courses for learning follow-up courses of this specialty. The main content includes: function, limits, continuity and derivative, differentiation rules, applications of derivative and differential, integration of unary function and its applications, integration method, preliminary of ordinary differential equations; space analytic geometry and vector algebra; infinite series; partial derivatives and multiple integrals, partial derivative of multivariate function, multiple integration.

2. 课程名称: 线性代数

(1) 课程编码: 1221009

(2) 课程简介: 该课程是计算机科学与技术各专业的一门重要基础课。主要讲授行列式、矩阵、

线性方程组、向量空间等重要概念，注重对学生的分析能力和运算能力的培养与锻炼，使学生以后能熟练使用线性代数方法解决实际问题，为以后的进一步学习打下良好的数学基础。

2. Course Name: Linear Algebra

(1) Course Code: 1221009

(2) Brief Introduction to the Course: It is a basic and important course for computer science and technology majors. The main teaching contents are about the important concepts such as determinants, matrices, linear equations and vector spaces. The course focuses on the training of analytical and operational capabilities of the students, and students are supposed to be able to solve practical problems using linear algebra methods and to lay a solid mathematical foundation for the further studies after completing the course.

3. 课程名称：离散数学

(1) 课程编码：1221011

(2) 课程简介：该课程是计算机科学与技术各专业的一门必修课，也是专业基础理论的核心课程。本课程介绍各专业所需要的离散数学基础知识，为进一步学习计算机科学的基本理论和方法奠定基础。通过学习本课程，可以掌握数理逻辑、集合论、代数结构、组合数学和图论的基本概念和原理，并会运用离散数学的方法分析和解决计算机理论和应用中的一些问题。

3. Course Name: Discrete Mathematics

(1) Course Code: 1221011

(2) Brief Introduction to the Course: This is a compulsory course for students majoring in computer science and technology, and also one of the core disciplinary foundation courses. This course introduces the basics of discrete mathematics which are needed by all the specializations in computer science, and will lay the foundation for further study of basic theories and methods of computer science. Through this course, students will be able to master the basic concepts and principles of mathematical logic, set theory, algebraic structures, combinatorial mathematics and graph theory, and can use discrete mathematics' method to analyze and solve both the theoretical and practical problems.

4. 课程名称：计算机学科导论

(1) 课程编码：1222032

(2) 课程简介：该课程是针对计算机学科各专业学生的第一门与所学专业有关的入门概述性课程，内容覆盖了计算机学科的各主要领域，力求使学生对所学专业有初步的了解。内容包括：计算机的基本概念,计算学科的教育,对计算学科毕业生的基本要求,信息化社会的挑战,计算学科知识体系;计算机的运算基础,计算机的基本结构与工作原理,程序设计基础,算法基础,数据结构基础;计算机硬件系统;计算机系统软件与工具软件。

4. Course Name: Introduction to Computer Science

(1) Course Code: 1222032

(2) Brief Introduction to the Course: This is the first specialty-related and introductory course which designed for students majoring in all specializations of the computer science disciplinary. Its contents cover the main areas of computer science, and the course strives to make students obtain some understanding of their specialties. The main content includes: basic concepts of computer and computer science, education for computer science, the basic requirements for graduates in computer science, the challenges of the information society, knowledge system of computer science; the computing foundation of computer; the organization and principles of computer, programming, algorithms, data structures, hardware, system software and application software.

5. 课程名称：C 语言程序设计

(1) 课程编码：1222999

(2) 课程简介：要学好计算机科学与技术，就必须学习而且必须熟练掌握计算机程序设计语言。该课程的教学效果将直接关系到学生对后继课程的学习，程序设计的能力也将直接关系到培养出来的

学生的软件开发能力。课程的目标就是要培养学生熟练掌握一门目前最常用的计算机程序设计语言，为后继课程的学习以及为计算机的使用打下良好的基础。C语言是现代最流行的程序设计语言系列之一，并广泛用于系统软件设计和应用软件开发。本课程全面系统地介绍C语言的基本概念、语法规则及用C语言编制算法正确、结构良好的程序设计方法，使学生全面掌握C语言的功能，掌握结构化程序设计的理论和方法。

5. Course Name: Programming in C

(1) Course Code: 1222999

(2) Brief Introduction to the Course: To learn computer science and technology, students must learn and must be familiar with computer programming language. The effect of this course will directly affect the learning effect of the subsequent courses, and the students' programming ability will directly relate to their software development capabilities. The C language is one of the most popular modern programming languages and is widely used in system software design and application development. This course provides a comprehensive and systematic introduction to C's basic concepts, grammar rules and the methods of how to correctly implement algorithm and design well-structured program. This course enables students to fully grasp the function of C language and master the theories and methods of structured programming.

6. 课程名称：数据结构与算法

(1) 课程编码：1222031

(2) 课程简介：该课程是计算机专业的一门核心专业基础课，它不仅是一般程序设计的基础，而且是设计和实现编译程序、操作系统、数据库系统及其它系统程序和大型应用程序的重要基础。它主要讲授线性结构、树形结构和图型结构几种基本的数据结构；和在此结构上的一种数据结构—查找表；以及计算机程序设计中的一种重要运算；同时对文件结构和内存的动态管理技术也作了介绍。

6. Course Name: Data Structures and Algorithm

(1) Course Code: 1222031

(2) Brief Introduction of the Course: Data Structure plays an important role in cultivating the students' data abstraction ability, algorithm design ability and creative thinking. It requires the students to solve the practical application problems by selecting appropriate data structure and algorithm. The contents include basic data structures and their application, searching method and ordering method of linear list, stack, queue, string, array, generalized list, tree and graph, etc..

(二) 专业课程模块

1. 课程名称：数据库原理

(1) 课程编码：1241409

(2) 课程简介：该课程使学生掌握数据模型、数据库系统结构、关系数据理论、SQL语言以及通用数据库应用等内容，能够独立地进行数据库的设计和开发，重点掌握数据库概念结构设计、数据库逻辑结构设计、数据库物理结构设计，掌握数据库应用程序设计、数据库索引，熟悉事务管理、数据库分析等。

1. Course Name: Principles of Database System

(1) Course Code: 1241409

(2) Brief Introduction to the Course: The course help students master data model, database system structure, relational data theory, SQL language and general database application etc., and can design and develop database independently. The focuses are on mastering the abilities of the conceptual model design of database, database logical model design, database physics model design, database application design, database indexing, and be familiar with the transaction management, database analysis, etc.

2. 课程名称：面向对象程序设计

(1) 课程编码：1241405

(2) 课程简介：该课程借助C++语言讲授面向对象程序设计的核心思想以及一些经典的设计模式，帮助学生进行面向对象的思维、方法的训练，并能用C++实现这些思路。通过学习、设计及实现，

使学生掌握 OOP 方法、原则与理论，具有一定的 OOP 设计、开发能力，为后续课程及大型应用软件的研究、设计打下基础。

2. Course Name: Object-oriented Programming

(1) Course Code: 1241405

(2) Brief Introduction to the Course: This course is taught by means of C++ to convey the core ideas of object-oriented programming language and some classic design patterns to students. It trains students to use object-oriented thinking and methods to solve the problems and to implement these ideas using C ++. Through the study, design and implementation, the course will enable students master the methods, principles and theories of OOP and have basic abilities for OOP design and development. This will lay the foundation for the subsequent courses and for the research and design of the large-scale application software.

3. 课程名称：管理学基础

(1) 课程编码：1241422

(2) 课程简介：该课程是介绍现代管理工作的作用和地位的引导性课程。主要内容有管理与管理者、管理学、管理环境、管理目标、管理决策、管理计划、组织设计与优化、组织人员配备、领导职能、员工激励、信息沟通、管理控制。

3. Course Name: Basic of Management

(1) Course Code: 1241422

(2) Brief Introduction of the Course: The course introduces the role of the management in modern business. Among the topics discussed, management and managers, management environment, management objectives, management decisions, management plan, structure design and optimization, staffing the organization, leadership functions, personnel incentives, communication services, and management control are all introduced.

4. 课程名称：计算机组织与结构

(1) 课程编码：1241036

(2) 课程简介：该课程主要讲述计算机的基本组成和工作原理。理论教学主要从计算机系统概论、运算器和运算方法、存储系统、指令系统、中央处理器、总线系统、外围设备和输入输出系统这八个方面讲解计算机的基本组成、基本原理和基本的设计方法。

4. Course Name: Computer Organization and Structures

(1) Course Code: 1241036

(2) Brief Introduction of the Course: The course provides knowledge of the basic concept of computer organization and working principles. It includes: the basic concepts of computer system, arithmetic unit, memory system, instruction system, CPU, bus system, peripherals and I/O system.

5. 课程名称：经济学

(1) 课程编码：1241021

(2) 课程简介：该课程作为一门专业基础理论课，侧重于有关基本概念、基本定律、基本理论的教学，使学生对市场经济运行机制的一般原理和规范行为等方面的内容有详尽的了解，并能运用一些基本的经济分析方法和工具。本课程的教学内容集中在微观经济学和宏观经济学两大部分上。主要内容有均衡价格理论，弹性理论，消费者行为理论，生产者行为理论，成本利润理论，厂商均衡理论，分配理论，国民收入核算理论与方法，失业与通货膨胀理论，经济周期理论，经济增长理论，宏观经济政策，开放经济中的国民经济收入均衡与调节。

5. Course Name: Economics

(1) Course Code: 1241021

(2) Brief Introduction of the Course: The course provides the basic concepts, theorems, theory of economics. Through this course, students can understand the general theory and ruling principles of market economy operational mechanism, and use basic economical analysis methods and tools in modern business.

It includes equilibrium price theory, theory of elasticity, theory of consumer's behavior, theory of producer behavior, theory of cost and interest, theory of producer equilibrium, theory of distribution, theories or methods of national income accounting, theory of unemployment and inflation, economic cycle theory, theory of economic growth, macroeconomic policy, balance and regulation of national income in an open economy.

6. 课程名称：概率论与数理统计

(1) 课程编码：1241023

(2) 课程简介：概率论是一门研究随机现象统计规律性数量关系的数学学科，而数理统计是研究如何有效地收集整理和分析受随机影响的数据，并做出统计推断、预测或者决策的一门学科，它以概率论为基础。该课程介绍概率论的数学理论，包括密度函数、分布函数、联合边缘分布、条件概率、期望与方差。然后介绍统计理论，包括参数估计、假设检验等的教学，应使学生掌握概率论与数理统计的基本概念，了解它的基本理论和方法，从而使学生初步掌握处理随机现象的基本思想和方法，培养学生运用概率统计方法分析和解决实际问题的能力。

6. Course Name: Probability and Statistics

(1) Course Code: 1241023

(2) Brief Introduction of the Course: This course is a unique compulsory course to deal with random phenomena, which studies statistical law and statistical inference of random phenomena. Undergraduates are supposed to grasp the basic theories and approaches to deal with random phenomena, and to obtain the capability to analyze and solve practical problems.

7. 课程名称：信息管理学

(1) 课程编码：1241301

(2) 课程简介：该课程让学生了解信息管理科学基础，信息管理的技術基础，信息行为理论，信息交流论，信息产品的开发，信息产品的流通，信息系统管理，信息产业管理。

7. Course Name: Information Management

(1) Course Code: 1241301

(2) Brief Introduction of the Course: The course provides students with deep understanding of the basic theory of information management science, including the technical base of information management, the theory of information behaviors, the theory of information communication, the development circulation of information products, the management of information systems and information industry.

8. 课程名称：操作系统（一）

(1) 课程编码：1241408

(2) 课程简介：该课程主要介绍操作系统的基本概念，重点从资源管理观点介绍操作系统的四大功能（处理机管理，存储器管理，文件管理，设备管理），及操作系统提供给用户的接口。此外还要介绍网络操作系统和分布式操作系统，并对流行的 UNIX 系统进行分析。

8. Course Name: Operating Systems 1

(1) Course Code: 1241408

(2) Brief Introduction of the Course: The course provides an in-depth understanding of roles of operating system in modern computer system, interfaces of operating system to different hardware and application program, algorithms that can be applied in operating systems, reasons behind the design of different operating systems. It introduces the basic concepts of OS such as: multiprogramming, multitasking, time-sharing, hardware interrupt, system call, process state, process control block, CPU scheduling, paging, virtual memory, page replacement algorithm, file and directory, open-file table, file allocation method, critical section, deadlock.

9. 课程名称：计算机网络

(1) 课程编码：1241415

(2) 课程简介：该课程主要是全面系统讲述计算机网络的发展和体系结构、物理层、数据链路层、信道共享技术、局域网、广域网、网络互连、运输层、计算机网络的安全、应用层协议和当前计算机网络的若干热门课题等内容。本课程的任务是：1) 使学生对计算机网络从整体上有一个较清晰的了解；2) 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；3) 学会计算机网络操作、日常管理和维护的基本方法；4) 初步掌握以 TCP/IP 协议族为主的网络协议结构；5) 了解网络新技术的新发展。

9. Course Name: Computer Networks

(1) Course Code: 1241415

(2) Brief Introduction to the Course: The course introduces the underlying concepts and principles of modern computer networks, with emphasis on protocols, architectures, and implementation issues. The main contents include: physical layer, data link layer, channel sharing technology, LAN, WAN, network interconnection, transport layer, network security, application layer protocols and several hot topics of computer network. The tasks of this course are enable students to: (1) have a clear understanding about the overall of the computer networks; (2) have a clear concept about main types of the current computer networks and the popular network protocols; (3) learn operations, daily management and basic maintenance methods about the computer networks; (4) have a preliminary master about the network protocol structure based mainly on TCP / IP protocol suite; (5) know the development of new network technologies.

10. 课程名称：会计学原理

(1) 课程编码：1241022

(2) 课程简介：该课程主要介绍会计学理论和实践的基本原则。涉及的内容有：借贷理论，帐户，分类帐，会计周期，票据及利息，应计和递延，应收账款，应收账款，应收票据，库存，固定资产，财务报告（资产负债表、利润表和现金流量表）。

10. Course Name: Principles of Accounting

(1) Course Code: 1241022

(2) Brief Introduction of the Course: This course introduces the basic principles of accounting theory and practice. Primary areas of study include the theory of debit and credit, accounts, and special journals, the accounting cycle, notes and interest, accruals and deferrals, receivables, inventory, plant assets, and the preparation of financial statements.

11. 课程名称：管理信息系统

(1) 课程编码：1241423

(2) 课程简介：该课程主要是全面介绍管理信息系统的基本原理和应用。内容包括信息系统的管理、管理信息系统概论、管理信息系统技术基础、管理信息系统的系统分析、设计、实施、面向对象的系统开发方法、信息系统的管理、决策支持系统、电子商务、电子政务。

11. Course Name: Management Information Systems

(1) Course Code: 1241423

(2) Brief Introduction of the Course: This course integrates topics of management and organization theory, information and communication theory, and systems theory relevant to managing an organization's information resources. Suggested course topics include information systems and management; principles of management information systems; technical base of MIS such as hardware, software, and telecommunications, database, computer hardware and software, telecommunications, and database concepts; system analysis, design, implementation of MIS; OOP system development method; management of information system; decision support system; E-commerce, e-government.

12. 课程名称：运筹学

(1) 课程编码：1241424

(2) 课程简介：该课程使学生能系统了解运筹学的基本概念、原理、研究方法和应用，掌握运筹学整体优化的思想和定量分析的优化技术，能正确应用各类模型分析和解决实际问题。本课程将讲解：建模，求解，理解模型；开发与环境的交互式反馈；线性规划；网络化建模；单纯形算法及它在计算机上的实现；灵敏度分析；对偶；网络化算法；动态规划。

12. Course Name: Operations Research

(1) Course Code: 1241424

(2) Brief Introduction of the Course: The course provides students with understanding of the essential tools of operations research to enable them model production environments and make scientifically based decisions. Operations research addresses certain kinds of decision problems arising in a wide variety of disciplinary and professional contexts. The goals of the course will be to develop student's skills in identifying typical problems; formulating, solving, and interpreting appropriate models; and developing interactive feedback with the problem environment. Topics include linear programming and network formulations, the simplex algorithm and its computer implementation, sensitivity analysis, duality, network algorithms, and dynamic programming.

13. 课程名称：研究方法 with 学术论文写作指导

(1) 课程编码：1241006

(2) 课程简介：科研方法的运用和学术论文的写作是大学生必须掌握的一项重要基本功。该课程帮助学生了解本专业的科研与论文选题方法、科学研究方法、文献的检索与综述、学术论文的写作流程、写作方法与写作规范、学术论文的编排规范等环节并受到相应的训练。

13. Course Name: Research Methods and Academic Writing

(1) Course Code: 1241006

(2) Brief Introduction of the Course: The course mainly includes topic selection of researching papers, three types and writing methods of researching papers, and basic characteristics, classification, format, selection and writing of scientific papers, and the problems that shall be avoided during the writing of scientific papers.

14. 课程名称：Web 信息系统设计与开发

(1) 课程编码：1241420

(2) 课程简介：该课程讲授 Web 服务技术，涵盖 Web 服务的商业需求、技术原理、技术架构、技术开发以及应用模式，主要包括如下内容：Web 服务概述、XML 与 XML Schema、SOAP、WSDL、UDDI、Web 服务组合、Web 服务应用开发、语义 Web 服务等等。通过本课程的学习，学生可以理解上述概念并掌握编写 Web 服务应用系统的能力。

14. Course Name: Web-based Information System Design and Development

(1) Course Code: 1241420

(2) Brief Introduction of the Course: The course introduces web services technologies, which involves business requirements, technical principles, technical architectures, development methods and application patterns. The contents of this course include but not limited to: an introduction of web services, XML and XML Schema, SOAP, WSDL, UDDI, web services composition, application development of web services. By the end of the class, students should be familiar with these concepts and have some experience both with building Web services and interacting with them programmatically.

15. 课程名称：电子商务

(1) 课程编码：1241425

(2) 课程简介：该课程分为基础、技术、管理、实践、应用五大部分。基础部分介绍电子商务的基础理论；技术部分重点介绍技术支撑平台、支付策略与技术、安全技术；管理部分介绍电子商务与法律、税收、网络企业管理；实践部分阐述电子商务体系结构与系统设训、门户网站设计与实现、

计算机系统集成与电子商务；应用部分侧重于介绍电子商务与国际贸易、网络应用心理学、电子商务案例分析。

15. Course Name: Electronic Commerce

(1) Course Code: 1241425

(2) Brief Introduction of the Course: The course discusses the foundations and key aspects of E-commerce which focus on the latest developments in the E-commerce industry. Practical case studies offer a useful reference for dealing with various issues in E-commerce such as latest applications, management techniques, or psychological methods.

16. 课程名称：应用统计学

(1) 课程编码：1242443

(2) 课程简介：该课程讲授统计学的基础理论、在实践中常用的统计方法和推断统计方法。内容包括以下几部分：第一部分是描述统计，包括统计数据的搜集与整理，介绍搜集和整理统计数据的常用方法数据分布特征的描述；讲述数据分布的集中趋势和离散程度的常用测度方法。第二部分是推断统计，包括概率与概率分布，介绍概率及概率运算的一些基础知识，以及几种常用的概率分布；抽样与抽样估计，介绍抽样的一些基本方式及参数估计的基本方法；假设检验，介绍总体参数的检验方法；方差分析，介绍单因素方差分析和双因素方差分析方法。第三部分是经济管理中常用的一些统计方法，包括相关与回归分析，时间序列分析。

16. Course Name: Application Statistics

(1) Course Code: 1242443

(2) Brief Introduction of the Course: The course covers the basic theory of statistics, common statistical methods and inferential statistical methods in business management. The course introduces the core concepts of management statistics such as statistical data, frequency distribution, diagrammatic and graphic representation, measures of central tendency, average, mathematical averages, position averages, measures of dispersion, correlation and regression, method of least squares, time series analysis and index number, methods of estimating trend, testing of hypothesis and inferences.

17. 课程名称：信息经济学

(1) 课程编码：1242302

(2) 课程简介：该课程的主要内容包括微观信息经济学、宏观信息经济学和信息系统经济学。微观信息经济学，也称理论信息经济学。它是从信息分布的不对称出发，对于经济学的基本问题的重新思考。其要旨在于对现实经济生活的深入认识与理解。宏观信息经济学则以信息产业为研究对象，从整个国民经济的大系统角度，探讨经济体系发展的测度、道路、方向及策略等问题。信息系统经济学则以各级各类信息系统的建设与管理为背景，研究其中的成本、效益、费用以及产品、价格等经济问题。

17. Course Name: Information Economics

(1) Course Code: 1242302

(2) Brief Introduction of the Course: The course includes micro economics of information, macro economics of information and economics of information system. Micro economics of information is also called theoretical information economics, which recalls the basic problems of economics to understand the real economics deeply. Macro economics of information focuses on information industry to explore the direction and strategy of economic system. Economics of information system stands at all-levels to study the economic issues such as prices, costs and benefits etc.

18. 课程名称：信息资源组织与管理

(1) 课程编码：1242309

(2) 课程简介：该课程主要内容包括：信息资源管理的基本内容、方法和技能；知识管理；数据挖掘商业应用；信息资源规划（IRP）；首席信息官（CIO）；网络信息资源管理，信息系统资源管

理、信息产业的组织管理、企业信息资源管理，以及经济信息资源管理案例。

18. Course Name : Information Resource Organization and Management

(1) Course Code: 1242309

(2) Brief Introduction of the Course: The course includes the basic content of the information resource management, methods and skills; knowledge management; data mining business applications; Information Resource Planning(IRP); chief information officers(CIOs); network information resource management, information systems, resource management, information industry organization and management, enterprise information resource management, and economic information resources management case, and so on.

19. 课程名称：财务管理

(1) 课程编码：1242064

(2) 课程简介：该课程介绍公司财务的理论、方法和关注点。课程的主要内容有：财务管理的基本概念，财务分析与财务预算，筹资管理，企业筹资方式，资金成本与资本结构，内部长期投资管理，对外投资管理，营运资金的管理，成本费用管理，收益分配，企业并购与重组。

19. Course Name: Financial Management

(1) Course Code: 1242064

(2) Brief Introduction of the Course: The course introduces the theory, the methods, and the concerns of corporate finance. It covers: basic knowledge of financial management, financial analysis and financial budget, capital raising management, capital raising modes of enterprises, cost of funds and capital composition, internal long-term investment management, external long-term investment management, working capital management, cost management, income distribution, corporate merger and acquisition.

20. 课程名称：ERP 原理及其应用

(1) 课程编码：1242445

(2) 课程简介：该课程主要讲解 ERP 的原理及其在当今企业管理中的应用。主要内容包括：ERP 系统一般业务流程、ERP 基本概念、销售管理系统、主生产计划、物料需求计划、能力需求计划、采购管理、库存管理系统、生产作业管理、成本管理、财务管理、设备管理、质量管理、分销资源计划、人力资源管理、供应链及客户关系管理及 ERP 项目实施等。

20. Course Name: ERP and Application

(1) Course Code: 1242445

(2) Brief Introduction of the Course: This course provides students with the ERP knowledge including ERP concepts, principle, ERP development, business processes, purchasing, sales, inventory and financial management as well as practical skills in ERP.

21. 课程名称：信息传播学

(1) 课程编码：1242446

(2) 课程简介：该课程帮助学生掌握信息传播的特点，了解人类个体、组织之间的信息传递和交流等知识。主要内容包括传播者、传播媒介、传播内容、受传者、传播效果、传播方法、传播管理、传播媒介市场管理、电子媒介企业的管理。

21. Course Name: Dissemination of information

(1) Course Code: 1242446

(2) Brief Introduction of the Course: The course provides students with deep understanding of the characteristics of information dissemination, information transmission and communication between/among individuals and organizations. The main content includes disseminators, media of communication, dissemination content, receivers, dissemination effect, Dissemination approaches, dissemination management, media market management, management of electronic media enterprises.

22. 课程名称：高级英语

(1) 课程编码：1242431

(2) 课程简介：该课程是一门提高学生的英语综合技能及熟练使用英语进行交际的能力的课程。通过阅读和分析内容广泛的材料，包括涉及政治、经济、社会、语言、文学、教育、哲学、宗教及自然科学方面的名家作品，扩大学生的知识面，加深学生对社会和人生的理解，培养学生对名篇的分析和理解能力、逻辑思维能力与独立思考的能力，增强对文化差异的敏感性，巩固和提高学生英语语言技能。

22. Course Name: Advanced English

(1) Course Code: 1242431

(2) Brief Introduction of the Course: The course improves students' English language skills and communication abilities. Through reading and analysis content of materials, including political, economic, society, language, literature, education, philosophy, religion and the masters' works, this course focuses on expanding students' knowledge, improving students' understanding of society and life, training students on the analysis and understanding capacity, enhancing on culture differences of sensitivity, consolidating and improving students' English language skills.

23. 课程名称：操作系统（二）

(1) 课程编码：1242450

(2) 课程简介：该课程在操作系统（一）的基础上加深学生对操作系统热点和核心的理解。本课程的覆盖内容包括操作系统的基本理论、最新进展和发展趋势，涉及话题包括进程管理、内存管理、处理器调度、I/O 和文件管理、分布式系统和安全等。本课程会选择特定的操作系统实例进行研究。学习本课程一方面能为将来从事操作系统研究的同学提供更广阔的技术背景和理论基础，同时可以使学生分析和解决问题的能力得以提高。

23. Course Name: Operating Systems 2

(1) Course Code: 1242450

(2) Brief Introduction of the Course: The course bases on the Operating System 1, with the purpose of strengthening students understanding of the core concept of operating system. The course covers the basic theory of operating system, latest progress and new development trend, and relevant topics, such as process management, memory management, processor scheduling, I/O and file management, distributed systems and safety and so on. This course will choose the specific operating system as the case study to practice. Through this course, it provides students who may further engage in operating system study in the future with more extensive technical background and theoretical basis on the one hand, and it also improves students' ability in terms of analyzing and solving problems.

24. 课程名称：高等数学（综合提高）

(1) 课程编码：1242447

(2) 课程简介：该课程在高等数学（一）和高等数学（二）的基础上，针对有进一步学术深造意愿的学生在函数、极限与连续，一元函数微分学，一元函数积分学，向量代数和空间解析几何，多元函数的微分学，多元函数的积分学和微分方程 7 个部分进一步提高和深化。

24. Course Name: Advanced mathematics (Comprehensive improvement)

(1) Course Code: 1242447

(2) Brief Introduction of the Course: On the basis of advanced mathematics 1 and 2, this course achieves improvement of such sections as function, limit and continuity, a unary function differential calculus, function of one variable integral calculus, vector algebra and spatial analytical geometry, differential calculus of function of many variables, function of several variables calculus and differential equations.

25. 课程名称：高级数据结构

(1) 课程编码：1242448

(2) 课程简介：深入了解数据结构及其分类、数据结构与算法的密切关系；提高对各种基本数据结构的操作能力，能够根据实际问题要求来选择数据结构；掌握基本查找表的概念、特征及其查找方法，基本的内排序和外排序方法，以及设计算法的步骤和算法分析方法；掌握数据结构在排序和查找等常用算法中的应用；扩展对文件组织方法和索引技术的了解。

25. Course Name: Advanced Data Structure

(1) Course Code: 1242448

(2) Brief Introduction of the Course: The course offers deep understanding of the close relationship between data structure and its classification as well as algorithm. It will improve various basic data structures operation ability, and relevant capability of selecting data structure according to the requirements of the practical problems. It enables students to grasp the basic concept of searching table, its characteristics, searching methods, and various steps of designing an algorithm and the methods of analyzing an algorithm. The course also introduces data structure application in sorting and searching algorithms, and extends related understanding of file organizing methods and indexing techniques.

26. 课程名称：信息检索

(1) 课程编码：1242449

(2) 课程简介：该课程主要介绍不同信息的检索方法，在网络环境下信息检索的现状、检索技术和最新发展。内容包括信息资源检索基础知识、网络信息资源检索概论、基于搜索引擎的网络信息资源检索、中西文网络数据库检索、特种文献信息的网络检索、网络信息资源的综合利用。

26. Course Name: Information Retrieval

(1) Course Code: 1242449

(2) Brief Introduction of the Course: The course introduces a variety of information retrieval approaches, current situation of information retrieval within Internet environment, and the latest development of retrieval technologies. The content covers the basic knowledge of information resource retrieval, introduction of Internet information source retrieval, search engine-based Internet information source retrieval, retrieval of Chinese and Western literature Network Database, Internet retrieval of special literature, synthetical utilization of network information resources.

27. 课程名称：数据库应用

(1) 课程编码：1242430

(2) 课程简介：该课程依据一个具体的开发平台（Oracle 数据库），讲授数据库管理和前台应用开发技术，培养学生实际开发数据库应用的能力，逐步引导学生完成需求分析、概念设计、逻辑设计、物理设计、代码设计、试运行等任务。将软件工程、面向对象的开发方法贯穿整个教学及系统开发过程中。学生通过本课程的学习，能够熟练地掌握 Oracle 数据库的体系结构及对 Oracle 数据库的操作，并运用开发工具，采用面向对象方法，依据严格的代码规范和界面规范完成大作业，使学生初步达到能够设计一个合理的数据库，并开发一个基于 C/S 结构的数据库应用系统。

27. Course Name: Database Applications

(1) Course Code: 1242430

(2) Brief Introduction of the Course: The course is based on a specific development platform (Oracle database), introducing database management and foreground application development technologies. It aims to practice database development and application skills, guiding students to complete a variety of tasks including requirement analysis, conceptual design, logistical design, physical design, code design and test run. The knowledge of software engineering and object-oriented programming method will be addressed throughout the whole course. Students are expected to grasp Oracle database architecture, Oracle database operations, its development tools, and are able to design a proper database and develop a C/S structure based database application system at the end of the course.

28. 课程名称：JAVA 语言程序设计

(1) 课程编码：1242417

(2) 课程简介：该课程介绍 Java 程序设计语言。主要包括语法规则，数据类型，Java 虚拟机，流控制，类和对象，继承和多态，抽象类和接口，异常，I/O 和其他知识。

28. Course Name: Programming in JAVA

(1) Course Code: 1242417

(2) Brief Introduction of the Course: The course provides an introduction to Java programming language. It mainly covers syntax rule, data type, Java virtual machine, flow control, class and object, inheritance and polymorphism, abstract class and interface, exception, I/O, and other knowledge in JAVA.

29. 课程名称：可视化程序设计

(1) 课程编码：1242427

(2) 课程简介：该课程结合 VB.NET 介绍 .NET 架构、编程基础、控制台应用程序设计、界面设计、数据库应用、GDI+ 绘图与多媒体应用、面向对象设计、报表设计、多项目开发、应用程序集成与部署安装、用户自定义控件、程序调试与异常处理技巧及窗口事件探讨，并介绍若干工程实例应用以了解 VB.NET 使用技巧和项目开发经验。

29. Course Name: Visual Programming

(1) Course Code: 1242427

(2) Brief Introduction of the Course: Combining with Visual Basic .NET, the course introduces .NET framework, programming basis, console application design, interface design, database access, GDI+ drawing and multimedia application, object oriented design, crystal report, multi-project development, application deployment, user-defined control, windows events, debugging and exception process. Some project instances are introduced to help students understand and master project development.

30. 课程名称：网络工程

(1) 课程编码：1242428

(2) 课程简介：该课程是计算机网络的后续课程，包括了多个不同难度的实验，适合学生循序渐进地学习。实验中的实验设计和安排以实验网络工程项目的需求为依据，涉及交换机、路由器、三层交换机、无线宽带路由器等网络设备的配置和管理；涉及常用网络服务的配置和管理。本课程旨在加深学生对网络工程所涉及的理论知识的理解，提高学生网络工程相关的动手实践能力、分析问题和解决问题的能力。通过这些实验，学生能够掌握网络管理员和网络工程师所需要的基本实践技能。

30. Course Name: Network Engineering Practice

(1) Course Code: 1242428

(2) Brief Introduction of the Course: The course provides several experiments at different levels to help students to implementing a computer network. The experiments involve the configuration and maintenance of switches, routers, wireless wideband routers, and the configuration and maintenance of common network services.

31. 课程名称：信息系统分析与设计

(1) 课程编码：1242442

(2) 课程简介：该课程通过若干综合信息系统案例，让学生了解信息系统分析与设计的方方面面：系统分析和设计的环境，信息系统构件，项目管理，系统分析，需求获取，使用用例建模系统需求，数据建模和分析，过程建模，可行性分析和系统方案建议，系统设计，应用架构和建模，数据库设计，输出设计和原型化，输入设计和原型化，用户界面设计，系统构造和实现，系统运行和支持。

31. Course Name: Analysis and Design of Information Systems

(1) Course Code: 1242442

(2) Brief Introduction of the Course: The course provides a number of case studies in information system to help students to understand aspects of analysis and design of information system, including system analysis and design environment, components of information system, project management, system analysis, requirement elicitation and their use case modeling, data modeling and analysis, process modeling,

feasibility analysis and candidate system solutions, system design, application framework and modeling, database design, output design and prototyping, input design and prototyping, user interface design, system construction and implementation, system running and support.

(三) 实践教学模块 (Practice Work)

1. 课程名称: 专业见习

(1) 课程编码: 1250023

(2) 课程简介: 参观一个 IT 企业或一个事业单位, 让学生了解未来的工作环境、工作单位的管理制度、工作流程和方法, 体验岗位的知识、技能要求, 增加对专业整体知识和职业技能的感性认识, 增强学生的专业兴趣和自豪感, 为后续相关专业课程的学习奠定基础。

1. Course Name: Professional Visits

(1) Course Code: 1250023

(2) Brief Introduction of the Course: Let students visit an IT enterprise or an institution to know the work environment, the management system, the work process and methods of enterprises and institutions, and the knowledge, skill requirements for posts. The course will cultivate their professional interests and prides, and lay a solid foundation the follow-up related courses.

2. 课程名称: 专业实习

(1) 课程编码: 1250024

(2) 课程简介: 专业实习是大学生经过三年的学习, 在走向社会之前, 锻炼综合运用所学的基础理论、基本技能和专业知识去独立分析和解决实际问题的能力, 提前适应工作环境, 掌握实际工作任务所需要的工作技能, 从而弥补学校课堂教学的不足所必需的一个专业实践环节。这一环节是大学教育和实际工作岗位之间的一个桥梁。实习内容包括熟悉主要专业任务的分析、设计、开发与实现流程; 了解相关行业的现状及其发展情况; 了解企事业单位的业文化及其管理情况; 学会怎样才能做一个合格的职业人。

2. Course Name: Professional Practice

(1) Course Code: 1250024

(2) Brief Introduction of the Course: Professional Practice will train students after three years of study in school and before playing professional roles. They will comprehensively apply the basic theory, basic skills and expertise to independently analyze and solve practical problems, adapt to the working environment in advance, grasp the practical working skills required for the actual job tasks, so as to make up for the lack of classroom teaching. This is a necessary bridge between university education and practical work. The students will be familiar with the analysis, design, development and implementation process of professional tasks, understand current situation and development of relevant industries, understand the culture and management of the IT enterprises and institutions and learn how to be qualified professional personnel.

3. 课程名称: 专业实践与社会调查

(1) 课程编码: 1250021

(2) 课程简介: 专业实践与社会调查是培养、训练学生认识社会、观察社会以及提高分析问题、解决问题能力的实践教学环节, 它不仅要求通过专业实践学生能够运用所学专业知识和技能解决问题, 而且使学生通过社会调查来提高学生观察社会、认识社会的能力, 提高学生的实践动手能力。

3. Course Name: Professional Practice and Social Survey

(1) Course Code: 1250021

(2) Brief Introduction of the Course: The course aims to train students to apply the professional knowledge and skills that they have grasped to solve problems through professional practice, and improve their ability to observe the society, understand society, and their practical abilities through social survey.

4. 课程名称: 科研训练

(1) 课程编码: 1250022

(2) 课程简介: 为了培养学生的创新意识和创业精神, 本课程鼓励学生以科研小组为单位根据导师的科研领域、自己的专业兴趣和专业特长自主选择研究课题, 确定研究目标、技术线路和研究计划开展研究。通过这个环节的锻炼, 学生能进一步熟悉科学研究的一般过程与方法, 培养探究问题的兴趣与能力, 为将来从事相关研究工作或就业打下良好的基础。

4. Course Name: Scientific Research Training

(1) Course Code: 1250022

(2) Brief Introduction of the Course: In order to cultivate the students' sense of innovative consciousness and entrepreneurial spirit, this course encourages the students in the form of research group to choose the research problems according to their tutors' research fields, their professional interest and expertise. They will sketch their research objectives, methods and research plan, and carry out research. Through this course, students are supposed to be familiar with the basic scientific research process and methods, cultivate their research interest and probing ability, which will lay a solid foundation for their future research work or employment.

5. 课程名称: 毕业论文 (设计)

(1) 课程编码: 1250025

(2) 课程简介: 毕业论文 (设计) 过程是培养学生综合素质和工程实践能力的重要实践教学环节。这将对学生专业能力的综合训练, 对培养学生解决实际问题的能力、综合应用知识的能力、运用各种工具的能力、写作能力、表达交流能力、团队协作能力以及创新精神有很大的帮助。周期一般为半年, 主要包括选题、开题、课题研究、论文写作和论文答辩等环节。

5. Course Name: Graduation Thesis

(1) Course Code: 1250025

(2) Brief Introduction of the Course: Graduation thesis writing is an important practical process of cultivating students' comprehensive quality and practical ability. This will greatly help to cultivate the students' ability to solve practical problems, the comprehensive ability of applying knowledge and various tools, writing ability, communication ability, team cooperation ability and spirit of innovation. For about half a year, the students need to carry out research problem choosing, opening report writing, researching, thesis writing and thesis defense.

信息管理与信息系统专业修读指南

Study Guidance to Information Management and Information System Specialty

一、指导性教学计划

第一学期			第二学期		
课程号	课程名称	学分	课程号	课程名称	学分
1711001	思想道德修养与法律基础	3	0211012	大学语文	2
1711002	中国近现代史纲要	2	0411047	大学外语（二）	3
0411046	大学外语（一）	3	1011040	大学体育（二）	1
1011039	大学体育（一）	1	1221008	高等数学（二）	3
1221006	高等数学（一）	4	1241409	数据库原理	3.5
1221009	线性代数	3	1241405	面向对象程序设计	4
1222032	计算机学科导论	1			
1222999	C 语言程序设计	5			
合计	必修 22 学分		合计	必修 16.5 学分	
（1）“形势与政策”为通识教育必修课，第 1-7 学期上课，共 2 学分。			（1）在第 3-8 学期中，须修读专业方向课程 15 学分，专业拓展课程 6 学分。 （2）在第 2-6 学期中，须修读通识教育选修课 8 学分，每学期最多选修 2 门课程。		
第三学期			第四学期		
课程号	课程名称	学分	课程号	课程名称	学分
0411048	大学外语（三）	3	1711004	毛泽东思想和中国特色社会主义理论体系概论	6
1011041	大学体育（三）	1	0411049	大学外语（四）	2
1711003	马克思主义基本原理	3	0411050	外语综合应用能力培训	1
1222031	数据结构与算法	5	1011042	大学体育（四）	1
1241036	计算机组织与结构	4.5	1241415	计算机网络	4.5
1241422	管理学基础	3	1241408	操作系统（一）	3.5
1241021	经济学	3	1241023	概率论与数理统计	3
			1241301	信息管理学	3
专业方向课程			专业方向课程		
1242430	数据库应用 （方向 1*、方向 2*）	2	1242417	JAVA 语言程序设计 （方向 1*、方向 2*）	3
1242443	应用统计学（方向 1*）	2.5	1242302	信息经济学（方向 1*）	2
			1242446	信息传播学（方向 2*）	2
合计	必修 22.5 学分，选修 0-4.5 学分		合计	必修 24 学分，选修 0-7 学分	
注：信息系统开发与应用方向记为方向 1* 信息系统创新人才方向记为方向 2*			（1）本学期间进行大学英语四级口语测试。		
第五学期			第六学期		

课程号	课程名称	学分	课程号	课程名称	学分
1241022	会计学原理	3	1241425	电子商务	4
1241423	管理信息系统	4.5	1241420	Web 信息系统设计与开发	3
1241424	运筹学	3	1241006	研究方法与学术论文写作指导	1
专业方向课程			专业方向课程		
1242427	可视化程序设计 (方向 1*、方向 2*)	3	1242442	信息系统分析与设计 (方向 1*、方向 2*)	3
1242428	网络工程(方向 1*、方向 2*)	3	1242064	财务管理(方向 1*)	3
1242309	信息资源组织与管理 (方向 1*)	3	1242447	高等数学(综合提高) (方向 2*)	3
1242431	高级英语(方向 2*)	3	1242448	高级数据结构(方向 2*)	3
1242450	操作系统(二)(方向 2*)	3			
专业拓展课程			专业拓展课程		
1243421	微机原理与接口技术	2.5	1243423	移动计算	1.5
1243001	专业英语	2	1243425	Android 应用开发	1.5
1243432	高级数据结构	2	1243434	高级程序设计	2
1243422	计算机图形学	1.5	1243433	操作系统(二)	2
			1243424	数字图像处理技术	1.5
合计	必修 10.5 学分, 选修 0-23 学分		合计	必修 8 学分, 选修 0-20.5 学分	
注: 信息系统开发与应用方向记为方向 1* 信息系统创新人才方向记为方向 2*			(1) 到本学期末, 应完成通识教育选修课 8 学分的修读。		
第七学期			第八学期		
课程号	课程名称	学分	课程号	课程名称	学分
1250024	专业实习	2	1250025	毕业论文(设计)	2
专业方向课程			专业方向课程		
1242445	ERP 原理及其应用 (方向 1*)	2			
1242449	信息检索(方向 2*)	2.5			
专业拓展课程			专业拓展课程		
1243426	信息安全	1.5	1243430	计算机新技术	1
1243427	智能计算	1.5	1243429	创新创业指导	1
1243428	电子商务	2	1243431	网路安全	2
合计	必修 2 学分, 选修 0-9.5 学分		合计	必修 2 学分, 选修 0-4 学分	
(1) 专业实习为两个月。 (2) 到本学期末, 应完成专业方向课程 15 学分的修读。 注: 信息系统开发与应用方向记为方向 1* 信息系统创新人才方向记为方向 2*			(1) 完成毕业论文(学校会对毕业论文进行查重、盲审和答辩, 一般安排在 5 月中下旬)。 (2) 到本学期末, 应完成专业拓展课程 6 学分的修读。 (3) 到本学期末, 总学分应不得少于 148 学分。 (4) 通常 6 月底办理离校手续。		

二、修读指导和说明

1. 学位授予

信息管理与信息系统专业，非师范专业，学制四年，修业年限为 4-6 年，授管理学学士学位。

2. 毕业要求

(1) 学生毕业时须由学校对其做全面鉴定。鉴定内容包括政治态度、思想意识、道德品质以及学习、劳动和健康状况等方面。

(2) 学生在规定的修业年限内，修满教学计划要求的学分，且符合有关毕业的要求。

3. 学分要求

(1) 学生按信息管理与信息系统专业本科教学计划表修读各门课程，总学分要求为 148 学分，其中通识教育模块不得低于 42 学分，学科基础模块不得低于 24 学分，专业课程模块不得低于 72 学分，实践教学模块不得低于 10 学分。

(2) 专业课程模块中，专业核心课程应选满 51 学分，专业方向课程至少选修 15 学分，专业拓展课程（计算机科学学院专业拓展课程）至少选修 6 学分。

(3) 专业方向课程（15 学分）中，选择信息系统开发与应用方向学生的学分在该方向课程中至少选修 10 学分，其余学分可从其它方向课程或各方向共选课程中选修；选择信息系统创新人才方向学生的学分在该方向课程中至少选修 12 学分，其余学分可从其它方向课程或各方向共选课程中选修。

(4) 专业拓展课程（6 学分）中，建议信息系统开发与应用方向学生，在微机原理与接口、移动计算、Android 应用开发、信息安全、智能计算、网络安全、创新创业指导课程中选修 6 学分；信息系统创新人才方向学生，在专业英语、计算机图形学、高级数据结构、操作系统—2、数字图像处理技术、高级程序设计、电子商务、计算机新技术课程中选修 6 学分。

4. 其它

课程开设时间、授课学时、课程开设方式及考核方式，参照陕西师范大学计算机科学学院信息管理与信息系统专业本科教学计划表执行。