

## Programme Summary

### 1. Programme Name: E-Commerce

### 2. Programme Objectives:

Based on CDIO concept as well as further research into related industries, we have made extensive research with stakeholders, and set the diversified talent training target to conform to the requirements of the society.

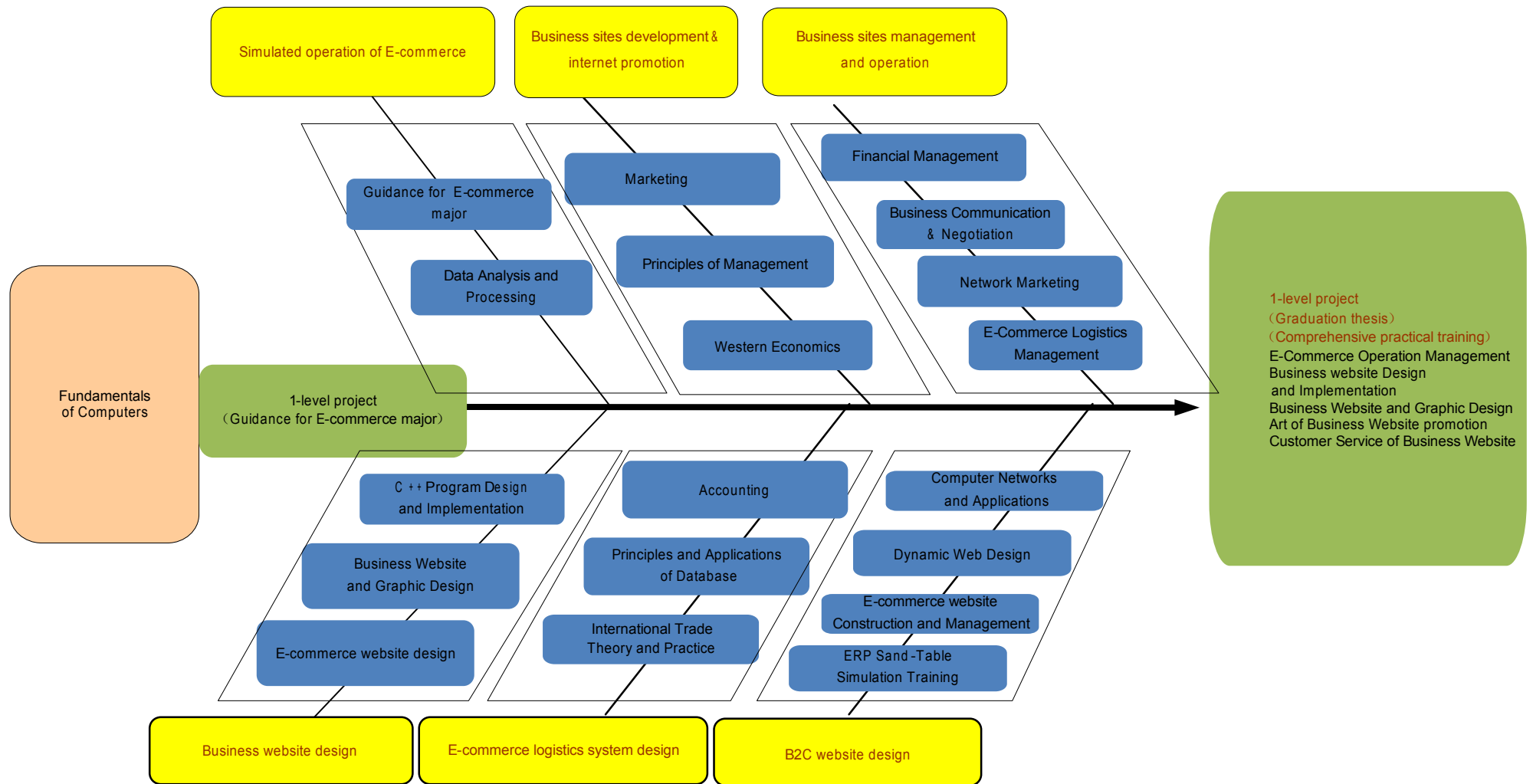
We offer our student well-studied program plans, qualified teachers, excellent experiment facilities, practical training platforms, and the necessary employment channels. Adequately trained students will find it easy to go into e-commerce services, e-commerce technology development in Internet companies, government agencies, industrial and commercial enterprises, IT organizations, finance, consulting, research institutes and other enterprises and institutions. Also, we help our students to develop open thinking and innovative ability, as well as a strong personal quality and teamwork inclination. They will learn to have proper ability in e-commerce operation, management, and network marketing. They will be able to design, implement and operate e-commerce projects in enterprise and social environment. And they will be qualified to work on website planning, website editing, website management, online marketing, customer service, etc.

### 3. TOPCARES-CDIO Outcome System (Student abilities specified)

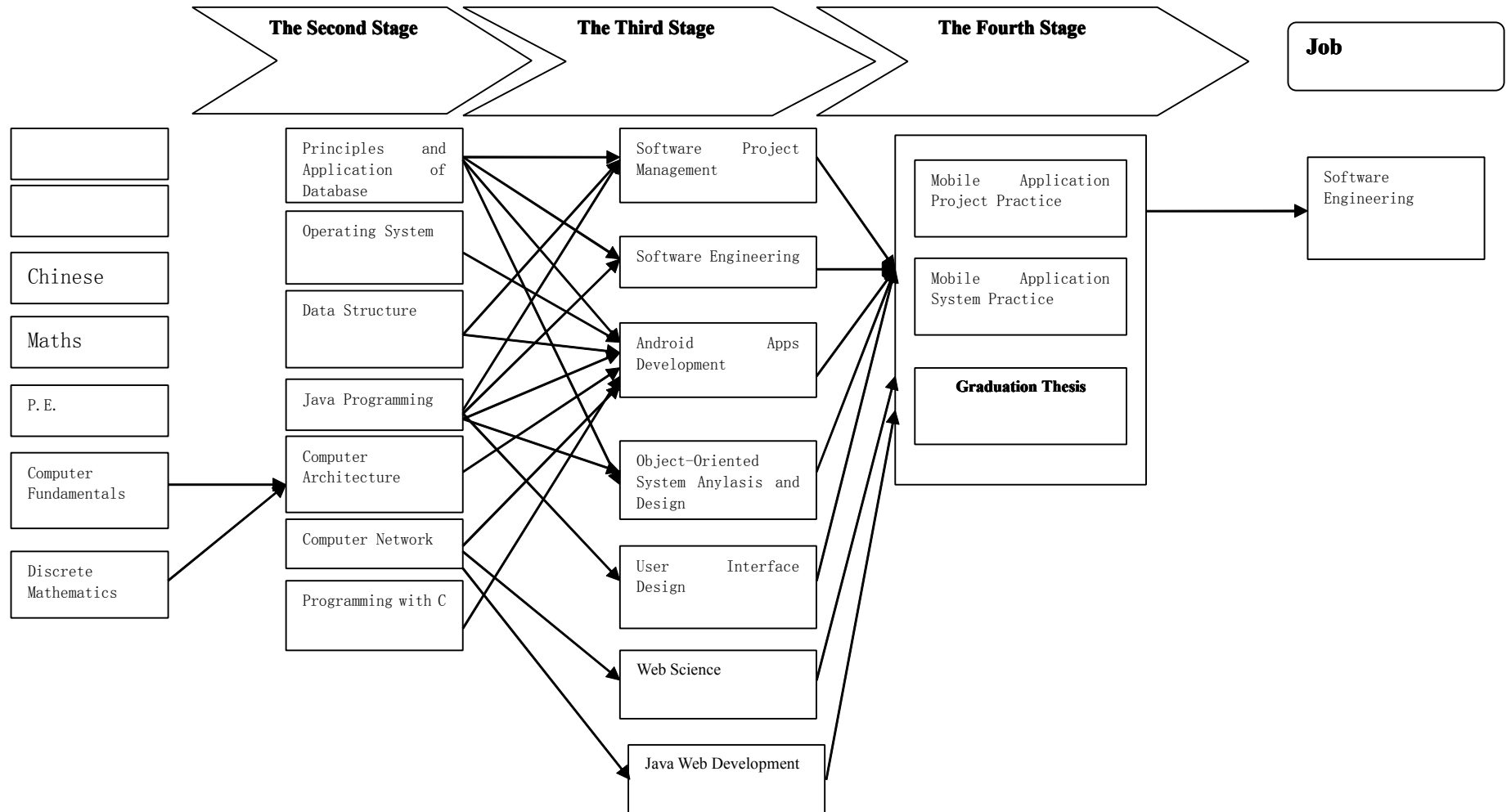
<b>TOPCARES (Level 1)</b>	<b>TOPCARES (Level 2)</b>
1. Technical knowledge and reasoning	1.1 Knowledge of underlying sciences
	1.2 Core engineering fundamental knowledge
	1.3 Advanced engineering fundamental knowledge
2. Open minded and innovation	2.1 Systematic Thinking
	2.2 Critical Thinking
	2.3 Creative Thinking
	2.4 Innovation ability
3. Personal and professional skills	3.1 Reasoning and problem solving

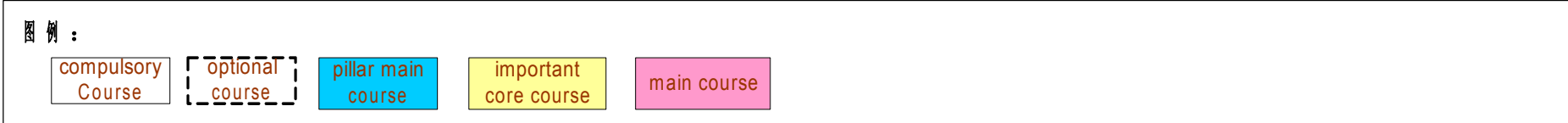
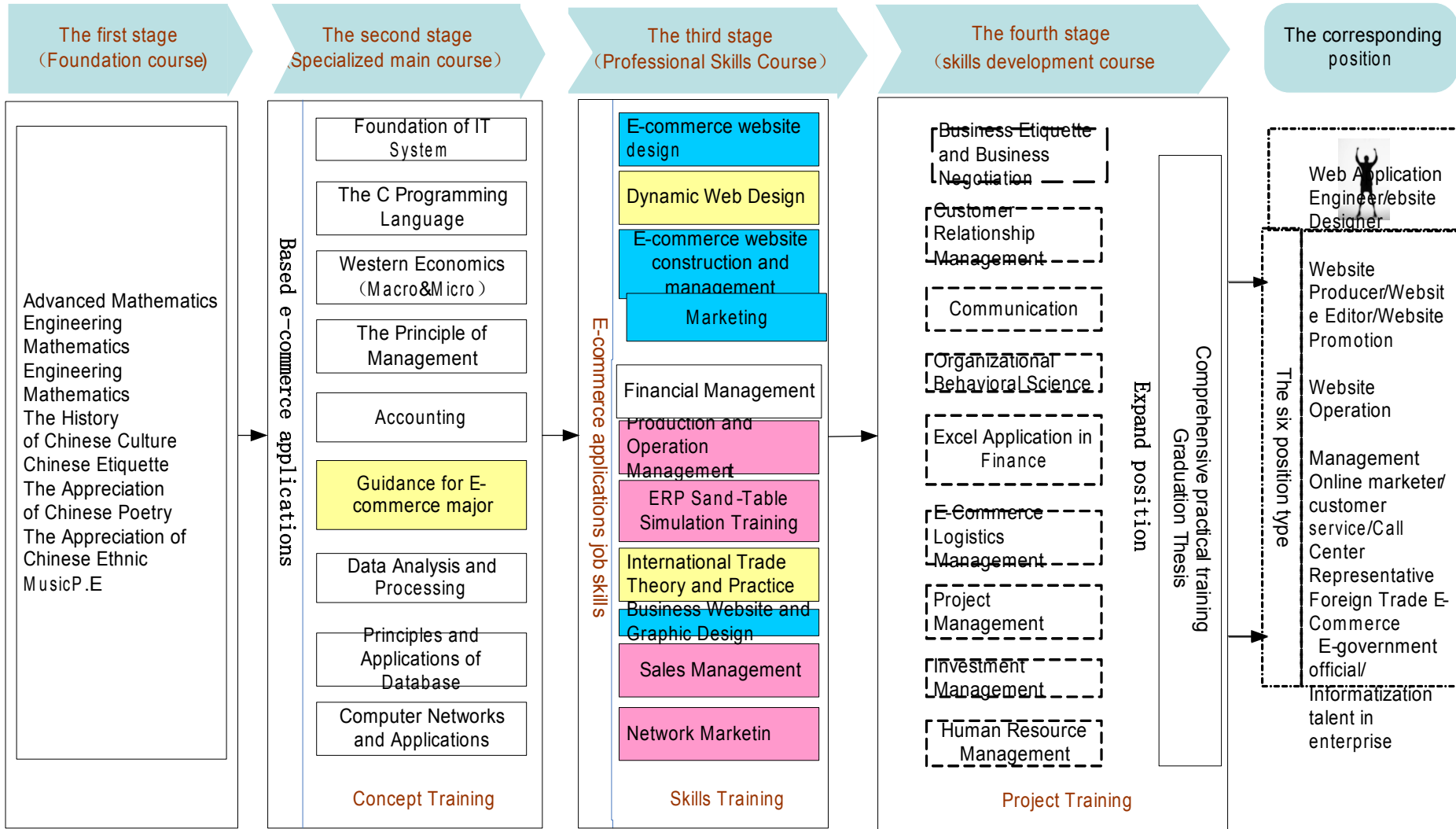
	3.2 Experimentation and knowledge discovery
	3.3 Information processing ability
	3.4 Time and Resource Management
	3.5 Curiosity and Lifelong Learning
4. Communication and teamwork	4.1 Communication strategy and structure
	4.2 Communications in foreign languages
	4.3 Teamwork
5. Attitude and manner	5.1 Professional Ethics, Integrity, Responsibility & Accountability
	5.2 Professional behavior
	5.3 Proactively Planning for One's Career
6. Responsibility	6.1 Roles and Responsibility of Engineers
7. Ethical values	7.1 Ethical standards and principles
8. Social contribution by application practice (CDIO)	8.1 External and societal context
	8.2 Enterprise and business context
	8.3 Industry application context
	8.4 Conceiving and engineering systems
	8.5 Designing
	8.6 Implementing
	8.7 Operating

#### 4. Fishbone Diagram - Projects & Main Course



## 5. Courses Roadmap





---

## 6. Courses Description

### **Descriptions of Core Courses**

#### **Major Guidance for E-Commerce**

Major Guidance for E-Commerce is the core course for E-Commerce major; it's the foundation for the further related study. The content of this course is including E-Commerce Technology, Framework and Business mode of E-Commerce, Payment system of E-Commerce, Logistics Management, Network Marketing, The application of E-Commerce in other fields, Legal's of E-Commerce, E-Commerce Security, Construction of E-Commerce System, etc. Through this system study on basic knowledge, basic principles, basic technology and the basic applications, it will build a theory base for the students' further studies on other knowledge of E-Commerce.

#### **Marketing**

Description: Marketing is a core course of E-commerce major. Through this course, students can grasp the basic principles of marketing and basic skills, and fully aware of the importance of marketing strategies and tactics. Course contents are: the basic connotation of marketing, definitions, subjects and areas of study; marketing history and development, marketing environment, marketing strategy, market research, international marketing, service marketing, marketing case studies.

#### **Management**

Description: Management is a core course of E-commerce major. It's a systematic study of the universal law of the management process, the basic principles and general methods of science. Research purpose is to find an objective law, summarize the general principles and methods of management and used to guide management practices. Through this course, students are required to understand the essential characteristics of management, administration and development of the history of ideas, management functions have a clear understanding of the true understanding of the essence of management; requires students to master the management system learn the basic principles of the integrated use of management science to the basic theory and methods, understanding, analyzing and solving real-world management issues, exercise and improve students' ability to solve practical problems.

#### **E-Commerce Website User Interface and Graphic Design**

This course is one of the core professional courses for all E-commerce students. In this course, students will explore basic web design and color schemes. Additionally, by using step-by-step method to create multiple websites and learning the UI design process, students will be able to better comprehend the method used to design an attractive website. The course will focus especially on the usage of the Adobe Photoshop software to learn and practice design. The objective of this course is to nurture and develop the creative sides of our students, help them in the art of design, and increase their overall skill in Web design until they attain a high level of achievement in the area, bringing them to the next level of E-Commerce.

#### **Web Design for E-Commerce**

This course is one of the core professional courses for all E-commerce students. Through

---

this course of study, the students will master general principles of E-Commerce website construction, basic concepts of web design, and the use of web page creation tools to form layout (Dreamweaver framework layout, layer layout, etc.) to cultivate the students' ability to use professional theory knowledge and skills. This course introduces E-Commerce website design knowledge and focuses on teaching students the abilities and skills of website planning, website layout and website design, and designing a website independently.

### **E-Commerce Website Construction & Management**

This course is one of the core professional courses for all E-commerce students. This course introduces the definition and classification of E-Commerce websites, website design and planning, website production, and promotion and management knowledge of E-Commerce websites. Through the study of this course, students will understand the general concepts and basic steps of website construction and management, master the basic knowledge of website maintenance, and use standard software to construct, maintain, and promote websites.

### **E-Marketing**

Description: Internet marketing is the core course of E-commerce major. It's a branch of marketing. On the one hand it is the theory of marketing on the Internet, e-commerce Etc, the other is in a network environment using modern information technology to improve the marketing and development of the theory. Internet Marketing offers a series of new methods and tools, mainly for the new market research, customer management, communication methods and techniques. Through this course, students will initially mastered in cyberspace to carry out marketing activities.

### **International Trade (Theory & Practice)**

To make the students understand the basic knowledge and business process of international trade, make the students can use trade negotiation knowledge, contract signing knowledge, the performance of the contract knowledge and other international trade knowledge in E-Commerce platform.

### **Business Etiquette and Negotiation**

This course mainly introduces the basic theory, process and skills of business negotiation, as well as related basic business etiquette knowledge and skills in business meeting, customer serving and visiting, business banquets and business occupational image design. Through the teaching activities to make the students master the basic knowledge and skills of business negotiation and etiquette; understand the importance of business negotiation and etiquette in business activities, thus able to use negotiations skills and etiquette knowledge consciously in business activities smoothly and effectively.

### **Microeconomics**

Microeconomics, the most important part of western economics, is the compulsory basic course of economic management and one of the core courses of economic major stipulated by national education. It plays an important role in the whole subject system. Microeconomics is also called individual economics and petty economics. The research object is single economic unit such as single producer, single consumer and single market activity. It is to analysis that how does single producer make maximize profit through distributing the limited resource to various products, and how does single

---

consumer make maximize satisfaction through distributing the limited income to various products.

At the same time, Microeconomics also analysis the output, cost, the factors of production, profit of single producer, income of factor supplier, quality, supply volume, demand volume and price of single goods. On the basis of analysing economic activity of individual economic units, Microeconomics research the market running mechanism of modern economic society and its role in economic resource location, and bring up policy to correct the market failure.

In this course, we will learn about the theory of consumer choice and demand, the market system, elasticity of demand and supply, producer's behavior, perfect competition, monopoly, monopolistic competition and oligopoly, market failure, microeconomic policies and so on.

## Macroeconomics

Macroeconomic study to the entire national economy as a research object to study the decisions of economic aggregates and their changes. Through the research on the relationship between the total national economy, analyses the impact of the government's economic policy on its national economy.

Macroeconomists study aggregated indicators such as GDP, unemployment rates, and price indices to understand how the whole economy functions. Macroeconomists develop models that explain the relationship between such factors as national income, output, consumption, unemployment, inflation, savings, investment, international trade and international finance.

Macroeconomics includes theoretical analysis and policy research, studying on the characteristics, the effect factors and the change law of the economy, as well as the content, applicability and action of the macroeconomic policy.

Macroeconomics include the accounting theory of national income, national income equilibrium theory, economic growth theory, employment theory, theory of inflation, economic cycle theory, theory of economic policy and so on.

## Major Guidance for E-Commerce

Major Guidance for E-Commerce is the core course for E-Commerce major; it's the foundation for the further related study. The content of this course is including E-Commerce Technology, Framework and Business mode of E-Commerce, Payment system of E-Commerce, Logistics Management, Network Marketing, The application of E-Commerce in other fields, Legal's of E-Commerce, E-Commerce Security, Construction of E-Commerce System, etc. Through this system study on basic knowledge, basic principles, basic technology and the basic applications, it will build a theory base for the students' further studies on other knowledge of E-Commerce.

## E-Commerce Website construction

This course is a practical course for application. Through this course of study, the students will master the general principle of E-Commerce website construction; master basic concept of web design, methods and skills; master the use of the web page creation tools, and can make use of web page making tools to form layout, Dreamweaver framework layout, layer layout, etc. To cultivate students the ability of using professional theory knowledge and professional skills. This course introduces E-Commerce website design knowledge, and focuses on training students the abilities and skills of website planning, website layout and website design, and can design independently.



---

## Basic Knowledge of Dynamic Website Design

This course is one of professional core courses for E-Commerce students. Through the study of this course, students can understand the composition and role of ASP.NET framework; Give a training to students to build up the logic thinking for program design through the system study of C#.NET language; Training the student to grasp two application program development interface and design process based on console and Windows Forms; Can design small application program and simple WEB dynamic pages independently.

## Sales Management

This course mainly discusses basic theory, basic technology, method and practice of sales management. Through teaching, make the students master the basic knowledge, basic theory and basic technical methods of the sales management; Clear sales planning management, the personnel management and practice management, etc. Through lectures and the practice operation, trains the student abilities to analyze and solve actual problems, and get some practical skills.

## Enterprise ERP Sand Table Simulation Training

Through the study of this course, students can understand the actual operation mode of the enterprise; understand macro control and micro regulations of three enterprise steps "purchase, sale and stock" in the simulation environment; summarize, drill and improve finance, marketing and management knowledge in the learned courses.

## Basicknowledge of computer

This course is the foundation of learning other professional courses. Theoretically, after the course, students can understand the basic knowledge of computers, hardware technology, software technology, multimedia and network technology systematically, form an initial impression of many aspects of expert computer knowledge. In practice, after the course, students can have a good office information processing capacity, including skillfully operating Microsoft Office like Word, Excel, PowerPoint, and skillfully operating other software needed in work.

## Principles and Applications of Database System

This course introduces the basic concept and theory of database systems, mainly including the development of the data management, the structure of database system, relational algebra, basic SQL statements, relation normalization theory, database design, database concurrency control system and backup recovery mechanism, the database security management, etc. Combined with abundant examples, this course will not only introduces the function of database management system, and will also let students know about how to design a small database application system. By learning this course, students will have the practical experience about the preliminary design of database application system, in the meantime, it can also develop students' ability of using the database technology to solve the problems.

## E-Commerce Logistics Management

Preceded with the courses of Electronic Commerce, in which some essential concepts, principles and technologies has been introduced, the course of E-Commerce Logistics will illustrates the relationship between the electronic commerce and logistics management. This course comprehensively and systematically introduces advanced

---

supply chain management concepts, specialized modern logistics knowledge, and logistics technologies in the environment of E-Commerce. Its main contents include the overview of E-Commerce Logistics management, E-commerce logistics system model, supply chain management strategy and enterprise resource planning management, electronic procurement and ordering systems, e-commerce logistics distribution system, the network marketing, etc.

### The Basis of Customer Relationship Management (CRM)

This course systematically introduces the basic theories, methods and applications of CRM. You can understand how to use information technology or something related to IT to manage and maintain the Customer Relationship, which will furthest improve business efficiency of corporations according to study this course.

### Data Analysis and Processing

The purpose of this course is improving the students' abilities in applying computers and training their capabilities in discovering, analyzing and solving problems. Their further professional studies will basis for this course. The main contents include Formula and Function, Common Function, Data Analysis and Processing, Chart, Pivot table and Perspective drawing, Application of Data Statistics, Application of programming solver and so on.

### SAP-SBO Application Course

As SAP-sbo is a splendid corporation application software, it serves as an excellent case study in this course to illustrate the principle of the business handling and informatization of the major parts in SAP-SBO, Besides, the advanced management ideas in it are analyzed, the functions of modules, business procedure handling and data setting in it are expounded, and the solutions of SAP-SBO in selling, manufacturing, purchasing, financing, storing are pointed out and analyzed. All in all, the purpose is to make students capable of applying SAP-SBO system to the informatization of corporations.

### Accounting

This course focuses on financial accounting and provides financial information for potential decision-makers. The main topic of this course is the general accounting, including the basic premise and general principles of accounting, the accounting elements and subjects, double entry bookkeeping and account, accounting documents and books, accounting procedure, mainly economic business accounting of industrial enterprises, the significance and species of accounting statements, counting statements, etc. After the study of this course, the students should be able to understand the basic theories and methods of accounting, master the basic process and skills of accounting, use the seven accounting methods to manage accounting business, make relevant original certificate and accounting voucher, and do the accounts following the relevant standard. This course can lay a solid foundation for the students to study subsequent course, especially software like SAP.

### Financial Management

Financial management is applied economy, management discipline, the course to enterprise capital movement as the center content, in order to raise funds, release, cost, income and distribution as frame,

Through the study, make the students master the financial management system of basic theory and basic knowledge, and on the basis of mastering the financial management of

---

various business methods, training students' financial analysis and solve financial management problem ability, for business decision-making service, and to learn other course lay a good foundation.

### EXCEL Application in the Financy

In order to improve the students' practical ability, it is a combination of "teaching, learning and doing". Use Excel solve the problems of the enterprise accounting system, covering the Excel in billing processing, report preparation, salary management, fixed assets management, financial analysis in stock sells and saves . Through learning and training of the project, students not only comprehensive review accounting knowledge and skills, but also be able to skillfully use the Excel to accounting and financial analysis.

## **Descriptions of Elective Courses**

### SAP Business One Certificate Course

Following the pattern of core courses, authenticated by SAP Business One. The purpose is to trains students' ability to consult, train and implement SAP Business One. The purpose of learning this course is to master basic operating skills and theory of SAP-SBO platform, using the basic knowledge of ERP and SBO analysis enterprise needs, complete informatization project solutions. The course require student have stronger and higher practical ability.

### Course Title: Security Analysis and Investment

Securities investment course is a subject for the investment rule that contains securities investment instruments, securities investment markets, securities investment analysis and securities investment strategies. Securities investment instruments mainly introduce the concepts, characteristics, nature of stocks, bonds, investment funds, and derivative securities. On the other hand, securities investment instruments also introduce all kinds of securities markets, mainly issuance markets and circulation markets.

The teaching purpose of "Securities Investment" is to enable students to systematically and comprehensively grasp the basic knowledge of securities market and securities investment, get familiar with the securities markets, related investment and management measures, and learn how to engage in scientific, rational investment and serve to government departments, financial institutions, securities institutions, enterprises and individual investment practice.

### Information Systems Management

This course provides a broad overview of the issues managers face in the selection, use, and management of information technology (IT). Increasingly, IT is being used as a tool to implement business strategies and gain competitive advantage, not merely to support business operations. Using a case study approach, topics include information technology and strategy, information technology and organization, and information technology assets management. The course takes a management rather than a technical approach to the material presented. As such, it should be of use to students of general management interested in information technology and to students of information technology interested in management.

### Spreadsheet Models for Managers

Using commercial spreadsheets, this course explores practical approaches to business

---

modeling, emphasizing the needs of financial, retail, wholesale, service, publishing, or software concerns ranging in size from start-ups to global enterprises. Students learn to model costs, revenue, cash flow, plant and equipment requirements, and employee costs and productivity. In a term project of their design, students develop a business model and use it to study how a business responds to change. To simulate the workplace environment, students are encouraged, but not required, to work assignments and term projects in teams.

### **Building and Managing Business Intelligence Systems**

Business intelligence (BI) systems are applications and technologies for gathering, storing, analyzing, and accessing information for better business decision making. Examples of BI systems include measuring and monitoring key performance indicators, benchmarking and forecasting sales, performing data mining and analysis of customer information to discover new business opportunities, and building enterprise dashboards to integrate and visualize information from various business areas. The demand for building and managing BI systems in today's very competitive and challenging economy is high. This course guides students through the complete life cycle of building and managing BI and analytics systems. Students are introduced step by step to the various phases and complexities in building and supporting successful BI and analytics systems. Topics covered include best practices in BI requirement gathering; BI project management; data warehousing; ETL (extract, transform, and load); data mining, predictive analytics, online analytical processing, BI application development, BI implementation, and production support.

### **Enterprise Content Management**

This course surveys the problems, considerations, and solutions involved in the area of managing large content sets in an enterprise context. The course discusses the use of content repositories, automated classification, defensible disposal, and analytics using a mixture of lecture, case studies, and in-class discussion. Students are expected to develop project plans, technical materials, and product comparisons in order to make coherent decisions regarding implementation of these technologies within their own organizations.

### **Managerial Accounting**

This course teaches students how to extract and modify costs in order to make informed managerial decisions. Planning is covered by topics including activity-based costing, budgeting, flexible budgeting, cost-volume-profit analysis, cost estimating, and the costs of outsourcing. Control is covered by topics including standard costing, variance analysis, responsibility accounting, and performance evaluation. Emphasis is placed on cost terminology (the wide variety of costs), cost behavior, cost systems, and the limitations concerning the use of average costs.

### **Investment Management**

The objective of this course is to develop the analytical skill sets required for risk and portfolio management in a global context. Topics covered include asset allocation, security selection, passive and active equity and fixed income portfolio management, management of alternative investments such as hedge funds and private equity, portfolio risk management using derivatives, trade execution of portfolio decisions, portfolio monitoring and rebalancing, and performance evaluation and attribution. The course examines the investment decisions faced by institutional investors such as mutual funds,

---

pension funds, endowments, foundations, banks, and insurance companies, and addresses private retirement and wealth management decisions. The course takes a global approach with asset class and country selections/allocations, spanning instruments traded in both developed economies and emerging markets.

### **Leadership Communications**

Students learn how to communicate clearly and persuasively, in a way that inspires action. They learn how to tailor communications to different audiences, apply the principles of logical reasoning in structuring communications, connect authentically with their audience through their unique leadership style, and create compelling, high-impact presentations and communications. Classes are often spent on hands-on exercises, and offer ample opportunity for discussion and feedback.

### **The Art of Communication**

Today's leaders must convey their messages concisely, confidently, and memorably. This course is for students to strengthen their public speaking and writing skills, and their authentic voices as professionals. We explore speechwriting, public speaking in victory and crisis, communicating from values, and working with social media and the news media. How can you make every communication a dialogue? How can you advance your goals and those of your listeners? How does speaking from the best of yourself give you confidence? How do you distill a message into one memorable sentence that captures your listeners' attention, moves your ideas forward, focuses the problem, and helps you achieve your goals? The course emphasizes weekly practical assignments. The goal of the course is for students to create final projects based on their specific interests and useful in their professional lives.

### **Gender, Leadership, and Management**

This course, which is equally important for women and men, examines leadership and management from a gender-based perspective. Issues covered include leadership styles and their impact, understanding of power, conflict management, ethical decision making, workplace stereotypes, impact on policy making, differences in communication, and approaches to teamwork.

### **Human Resource Management**

Human resource (HR) management can be defined as the effective use of human resources in an organization through the management of people-related activities. It is a central and strategic organizational activity of increasing complexity and importance. This introductory survey course covers the range of HR activities all managers need to understand: strategic HR, legal issues, staffing, recruitment and selection, performance management, training, compensation, labor relations, and technical support systems. Through interactive lectures and cases, students become familiar with the basic principles and techniques of human resource management. The course takes a practical view that integrates the contributions of the behavioral sciences with the technical aspects of implementing the HR function in the real world.

### **Strategic Talent Management**

Over the past decade, successful companies have identified talent management as a critical component of global business strategy and started to shift the way they source, develop, manage, and reward human resources in their organizations. In this course, students explore the key elements of effective talent management. Topics include best

---

practices in talent acquisition, performance management, learning and development, and succession management. Class sessions help students understand the strategies, processes, and practicalities that are driving talent management in organizations today.

### **Project Management**

The course develops the competencies and skills for planning and controlling projects and understanding interpersonal issues that drive successful project outcomes. Focusing on the introduction of new products and processes, it examines the project management life cycle, defining project parameters, matrix management challenges, effective project management tools and techniques, and the role of a project manager.

### **Project Management of Information Technology**

This course explores and defines project management techniques for keeping management informed and engaged during the implementation of IT projects, which often involve significant organizational change. Discussion topics include project scope, business benefits, work and schedule, the project team, mitigating risks, project delivery, and the identification of stakeholders.

### **Operations Management**

The operational function lies at the heart of every organization, whether for profit or nonprofit, whether manufacturing or service. All organizations take some inputs and transform them into outputs for consumption by customers. The operational function focuses on this transformation process. It examines how value is added to a product or service. This course covers the design, planning, execution, control, and improvement of operational systems in organizations with a special focus on the strategic role of the operational function in helping the organization achieve its mission.