

课程详述

COURSE SPECIFICATION

以下课程信息可能根据实际授课需要或在课程检讨之后产生变动。如对课程有任何疑问，请联系授课教师。

The course information as follows may be subject to change, either during the session because of unforeseen circumstances, or following review of the course at the end of the session. Queries about the course should be directed to the course instructor.

1.	课程名称 Course Title	金融信息系统 Management information Systems				
2.	授课院系 Originating Department	金融系 Department of Finance				
3.	课程编号 Course Code	FET302				
4.	课程学分 Credit Value	3				
5.	课程类别 Course Type	专业选修课 Major Elective Courses				
6.	授课学期 Semester	春季 Spring				
7.	授课语言 Teaching Language	中英双语 English & Chinese				
8.	授课教师、所属学系、联系方式（如属团队授课，请列明其他授课教师） Instructor(s), Affiliation & Contact (For team teaching, please list all instructors)	陈琨, 助理教授, 金融系 Kun CHEN, Assistant Professor. Chen Kun, Department of Finance 邮箱/Email: chenk@sustech.edu.cn 办公室/office: 慧园 3 栋 319, Wisdom Valley 3#319				
9.	实验员/助教、所属学系、联系方式 Tutor/TA(s), Contact	滕琪, 金融系 Teng Qi, Department of Finance 邮箱/Email: tengq@mail.sustech.edu.cn				
10.	选课人数限额(可不填) Maximum Enrolment (Optional)					
11.	授课方式 Delivery Method	讲授 Lectures	习题/辅导/讨论 Tutorials	实验/实习 Lab/Practical	其它(请具体注明) Other (Please specify)	总学时 Total
	学时数 Credit Hours	40	8	N/A	N/A	48

12. 先修课程、其它学习要求 Pre-requisites or Other Academic Requirements	无 None
13. 后续课程、其它学习规划 Courses for which this course is a pre-requisite	无 None
14. 其它要求修读本课程的学系 Cross-listing Dept.	无 None

教学大纲及教学日历 SYLLABUS

15. 教学目标 **Course Objectives**

本课程旨在向学生展示现代商业公司如何使用信息技术以及信息系统来完成公司的目标，课程结束后，学生将会对管理信息系统有全面及深入的了解，并且能够掌握金融信息系统需求分析和软件设计的基本原理和方法。

This course aims to show students how today's business firms achieve their goals with information technologies and systems. After finishing course, students will have a comprehensive and deep understanding of management information systems, as well as can master the basic principles and methods of management information system analysis and software design.

16. 预达学习成果 **Learning Outcomes**

1. 对现代商业公司使用的信息系统及技术有全面的了解。
2. 能够正确分析公司实际情况，并运用适当的信息技术优化公司模式。
3. 对信息系统的变化趋势有一定见解，能够推测未来信息系统发展方向。
4. 能够使用结构化设计方法和面向对象设计建模方法来设计简单的金融信息系统。

1. Having a comprehensive understanding of information systems and technologies used by today's business firms.
2. Students can analyse firms' real situation in a correct way and use proper information technologies to optimize firms' pattern.
3. Having unique view of information systems' development trends, and being able to predict the direction of future information systems' developments.
4. Implement the structured analysis and UML to design a simple management information system.

17. 课程内容及教学日历（如授课语言以英文为主，则课程内容介绍可以用英文，如团队教学或模块教学，教学日历须注明主讲人）

Course Contents (in Parts/Chapters/Sections/Weeks. Please notify name of instructor for course section(s), if this is a team teaching or module course.)



理论（40 学时）

第一章 当今信息系统（2 学时）

在本章中，学生将从信息系统发挥的作用入手，从不同的视角了解信息系统现今状况。同时我们也将介绍一些信息系统的现代方法供学生参考。

第二章 全球化的电子商业与协同工作（2 学时）

在本章中，学生将学习到信息系统在商业全球化的进程中作出的贡献：电子商业及促进协同工作。之后本章会一一介绍不同种类的信息系统，并重点讲解团队协作的信息系统所发挥的作用。

第三章 信息系统的组织和策略（2 学时）

在本章中，学生将了解信息系统是如何影响公司决策的。信息系统能够更加高效、准确地整理和分析数据，让决策制定者清晰地认识到公司实际情况。但同时，使用信息系统也可能招致一些问题。

第四章 信息系统中的道德问题和社会问题（2 学时）

在本章中，学生将学习到信息系统所带来的道德问题和社会问题。随着信息技术的飞速发展，个人隐私也逐渐受到侵犯，为此我们有必要了解技术什么时候该大力进步，什么时候应该谨慎前行。

第五章 IT 设施与新兴技术（2 学时）

在本章中，学生将学习到软硬件平台的变化趋势以及 IT 设施的组成部件。总体来说，软件平台会朝着浏览器及软件系统进一步发展。而硬件平台则以云计算为主作为未来的变化趋势。

第六章 智能商业的基础：数据库和信息管理（2 学时）

在本章中，学生将学习一些实际操作来了解数据库的功能。我们将介绍如何运用数据库整理数据并用其改善原有的商业表现和商业决策。

第七章 电信、网络和无线技术（2 学时）

在本章中，学生将学习到电信产业的发展历史及未来发展方向。电信产业将紧密结合有线网络和无线网络，为人类提供更高效的服务。

第八章 信息系统安全（2 学时）

在本章中，学生将学习到许多潜在的对数据库的威胁，并且了解到数据信息泄露可能带来的严重的后果。为此，我们需要及时地为信息系统制定安保措施。

第九章 企业如何获取实操优势和客户黏性（2 学时）

在本章中，学生将通过几个案例深入了解信息系统如何帮助企业获得竞争优势。信息系统在其中主要发挥两类功能，第一是管理系统的供给链，第二是方便企业与客户的交流，维护客户黏性。

第十章 电子商业：电子市场、电子货物（2 学时）

在本章中，学生将学习到新颖的电子商业，以及如何建设吸引人的电商网站。同时，我们认为电子商业在未来必定会在手机上大展宏图，因此本章着重介绍了手机数字平台和手机电子商业。

第十一章 知识的管理（2 学时）

在本章中，学生将学习到不仅是商业信息需要系统管理，在未来知识也是信息系统所需要管理的重要部分。首先本章会介绍知识内容在未来将发挥的巨大作用，之后则讲述如何运用智能技术管理知识内容。

第十二章 商业决策的扩展（2 学时）

在本章中，学生将再次接触到商业决策有关的知识，但学生将学习到在不同群体中的商业智慧，以及如何制造合适的信息系统来运用这些商业智慧。

第十三章 信息系统建立的策略（2 学时）

本章将介绍信息系统发展的整体概览，并且提供几种信息系统的建设方式，之后我们将提出几个管理信息系统的实操项目供学生实际体验。本章的最后我们将介绍数字公司的应用发展趋势供学生参考。

第十四章 软件过程模型（2 学时）

介绍主要介绍几种常见的软件过程模型：瀑布模型、快速原型模型、增量模型、螺旋模型、敏捷过程模型（极限编程）。

第十五章 结构化分析（2 学时）

本章主要介绍结构化分析方法思想和过程。

第十六章 面向对象分析（2 学时）

本章主要介绍面向对象分析方法的简介及分析过程

第十七章 软件测试（2 学时）

本章主要介绍信息系统建立中软件测试的方法—黑盒测试、白盒测试技术以及测试用例的设计

第十八章 管理项目（2 学时）

在本章中，有了一定信息系统制造知识的学生将学习到如何选择一个正确的项目以及如何正确地管理一个项目。首先本章将谈论项目管理的重要性，之后我们将讲述如何为信息系统确立商业价值以及如何管理一个项目的风险。

第十九章 全球系统的管理（2 学时）

在本章，学生将了解到经济全球化带来的系统全球化，以及如何管理全球的系统。最后我们会详细地讲述全球价值链的技术问题和机遇。

第二十章 软件项目管理（2 学时）

本章主要介绍软件项目管理中的成本管理、进度管理和风险分析等一系列活动，并介绍 MS Project 2010 项目工具的使用。

辅导（8 学时）

第一部分 结构化分析（4 学时）

1.1 系统功能结构图、ER 图（2 学时）

本部分主要讲解使用 VISIO 软件绘制系统功能结构图、数据流图和 ER 图。

1.2 数据流图和数据字典（2 学时）

本部分主要讲解使用 VISIO 软件绘制数据流图，以及数据字典的设计

第二部分 UML 面向对象建模（4 学时）

2.1 用例图、类图（2 学时）

本部分主要讲解 UML 建模技术，使用 VISIO 软件绘制用例图、类图。

2.2 顺序图、协作图、状态图、活动图（2 学时）

本部分主要讲解使用 VISIO 软件绘制顺序图、状态图等。

Lecture (32 hours)

Chapter 1 Information Systems in Global Business Today (2 hours)

In this chapter, students will start with the role of information systems and understand the current situation of information systems from different perspectives. At the same time, we will introduce some modern methods of information system for students' reference.

Chapter 2 Global E-Business and Collaboration (2 hours)

In this chapter, students will learn about the contribution of information systems in the process of business globalization: e-commerce and promoting collaborative work. Later, this chapter will introduce different kinds of information systems one by one, and focus on the role of team collaboration information systems.

Chapter 3 Information Systems, Organizations, and Strategy (2 hours)

In this chapter, students will learn how information systems affect corporate decision-making. Information systems can organize and analyze data more efficiently and accurately, so that decision makers can clearly understand the actual situation of the company. But at the same time, the use of information systems may also cause some problems.

Chapter 4 Ethical and Social Issues in Information Systems (2 hours)

In this chapter, students will learn about the moral and social problems brought about by information systems. With the rapid development of information technology, personal privacy has gradually been violated. Therefore, it is necessary to know when technology should be vigorously improved and when it should be cautious to move forward.

Chapter 5 IT Infrastructure and Emerging Technologies (2 hours)

In this chapter, students will learn about the changing trends of software and hardware platforms and the components of IT facilities. Generally speaking, the software platform will further develop towards browsers and software systems. And the hardware platform will take cloud computing as the main trend in the future.

Chapter 6 Foundations of Business Intelligence: Databases and Information Management (2 hours)

In this chapter, students will learn some practical operations to understand the functions of the database. We'll show you how to use databases to organize data and use them to improve business performance and business decisions.

Chapter 7 Telecommunications, the Internet, and Wireless Technology (2 hours)

In this chapter, students will learn about the development history and future direction of the telecommunications industry. The telecommunication industry will closely integrate wired and wireless networks to provide more efficient services for human beings.

Chapter 8 Securing Information Systems (2 hours)

In this chapter, students will learn about many potential threats to databases and the serious consequences of data disclosure. To this end, we need to develop security measures for information systems in a timely manner.

Chapter 9 Achieving Operational Excellence and Customer Intimacy: Enterprise Applications (2 hours)

In this chapter, students will have a deep understanding of how information systems can help enterprises gain competitive advantage through several cases. Information system plays two main functions. The first is the supply chain of management system. The second is to facilitate the communication between enterprises and customers and maintain customer stickiness.

Chapter 10 E-Commerce: Digital Markets, Digital Goods (2 hours)

In this chapter, students will learn about new e-commerce and how to build attractive e-commerce websites. At the same time, we believe that e-commerce is bound to show great promise on mobile phones in the future, so this chapter focuses on the introduction of mobile phone digital platform and mobile phone e-commerce.

Chapter 11 Managing Knowledge (2 hours)

In this chapter, students will learn not only that business information needs system management, but also that knowledge is an important part of information system management in the future. Firstly, this chapter will introduce the tremendous role that knowledge content will play in the future, and then it will describe how to use intelligent technology to manage knowledge content.

Chapter 12 Enhancing Decision Making (2 hours)

In this chapter, students will be re-exposed to business decision-making related knowledge, but students will learn business wisdom in different groups, and how to create appropriate information systems to use these business wisdom.

Chapter 13 Building Information Systems (2 hours)

This chapter will introduce the overall overview of the development of information systems, and provide several ways to build information systems. After that, we will propose several practical projects of management information systems for students to experience. At the end of this chapter, we will introduce the application development trend of digital company for students' reference.

Chapter 14 Software Process Model (2 hours)

This chapter introduces several common software process models: waterfall model, rapid prototype model, incremental model, spiral model, and agile process model (extreme programming).

Chapter 15 Structured Analysis (2 hours)

This chapter mainly introduces the ideas and processes of structured analysis methods.

Chapter 16 Object-oriented analysis (2 hours)

This chapter mainly introduces the history and principles of object-oriented analysis, in this chapter, students will have a deep understanding of the analysis process of object-oriented analysis.

Chapter 17 Software Testing (2 hours)

This chapter mainly introduces two techniques of software Testing, i.e. Black box testing, white box testing, and how to design the test cases.

Chapter 18 Managing Projects (2 hours)

In this chapter, students with a certain knowledge of information system manufacturing will learn how to choose a correct project and how to manage a project correctly. First of all, this chapter will talk about the importance of project management, and then we will talk about how to establish business value for information systems and how to manage the risks of a project.

Chapter 19 Managing Global Systems (2 hours)

In the last part of this book, students will learn about the system globalization brought about by economic globalization and how to manage the global system. Finally, we will elaborate on the technical issues and opportunities of GVCs.

Chapter 20 Software Project Management (2 hours)

This chapter focuses on cost management, schedule management, and risk analysis in software project management, and introduces the MS Project 2010 tool to manage projects.

Tutorials (8 hours)

Part 1 Structured Analysis (4 hours)

1.1 System structure diagram and ER diagram (2 hours)

This part mainly explains how to use the VISIO software to draw the system structure diagram and ER diagram.

1.2 Data Flow Diagram and Data Dictionary (2 hours)

This part mainly explains how to use the VISIO software to draw data flow diagram and design the data dictionary.

Part 2 Object-Oriented Modeling——UML (4 hours)

This part introduces the UML modeling technology, and how to use the VISIO software to draw use case diagram, class diagram, sequence diagram, collaboration diagram, state diagram, activity diagram

2.1 case diagram and class diagram (2 hours)

This part introduces the UML modeling technology, and how to use the VISIO software to draw use case diagram, class diagram

2.2 sequence diagram, collaboration diagram, state diagram and activity diagram (2 hours)

This part shows how to use the VISIO software to draw sequence diagram, collaboration diagram, state diagram, activity diagram.

18. 教材及其它参考资料 Textbook and Supplementary Readings

- Required: Kenneth C Laudon, Jane P Laudon - Management Information Systems - Managing the Digital Firm, 12th Global Edition, Tsinghua University Press.
- 唐晓君. 软件过程——过程、方法及工具. 清华大学出版社.
Xiaojun Tang. Software Engineering - Processes, Methods and Tools. Tsinghua University Press

19. 评估形式 Type of Assessment	评估时间 Time	占考试总成绩百分比 % of final score	违纪处罚 Penalty	备注 Notes
出勤 Attendance				
课堂表现 Class Performance				
小测验 Quiz				
课程项目 Projects				
平时作业 Assignments		30%		
期中考试 Mid-Term Test				
期末考试 Final Exam				
期末报告 Final Presentation		70%		2 个报告: 35%+35% 2 projects : 35%+35%
其它 (可根据需要 改写以上评估方式) Others (The above may be modified as necessary)				

20. 记分方式 GRADING SYSTEM

- A. 十三级等级制 Letter Grading
 B. 二级记分制 (通过/不通过) Pass/Fail Grading

课程审批 REVIEW AND APPROVAL

21. 本课程设置已经过以下责任人/委员会审议通过
This Course has been approved by the following person or committee of authority