INFORMATION SYSTEMS

College of Business
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Professor

DAVID D. CHAO (1990), Professor of Information Systems; B.S. (1976), National Taiwan University; M.S. (1982), University of Georgia; Ph.D. (1990), University of Washington.


ROBERT C. NICKERSON (1978), Professor of Information Systems; B.S. (1968), M.S. (1969), University of California, Berkeley; Ph.D. (1978), University of California, Santa Cruz.


Associate Professor
LEIGH JIN (2001), Associate Professor of Information Systems; B.S. (1990), M.B.A. (1993), Beijing University of Aeronautics and Astronautics; Ph.D. (2001), Georgia State University.

LIK MUI (2003), Associate Professor of Information Systems; B.S. (1995), M.Eng. (1995), Massachusetts Institute of Technology; M.Phil. (1997), Oxford University; Ph.D. (2003), Massachusetts Institute of Technology.

Assistant Professor
MATTHEW LEVY (2013), Assistant Professor of Information Systems; B.B.A. (1999), Texas Tech University; M.B.A. (2007), San Diego State University; Ph.D. (2013), Louisiana State University.

Major
• Bachelor of Science in Business Administration: Concentration in Information Systems (bulletin.sfsu.edu/colleges/business/information-systems/bs-business-administration-concentration-information-systems)

Minor
• Minor in Information Systems (bulletin.sfsu.edu/colleges/business/information-systems/minor-information-systems)

Certificate
• Certificate in Information Technology Auditing (bulletin.sfsu.edu/colleges/business/information-systems/certificate-information-technology-auditing)

ISYS 198 Information Systems Spreadsheet Make-Up (Unit: 1)
Prerequisite: Consent of instructor.
Additional study to make up the spreadsheet component of otherwise equivalent courses in order to receive full credit. (CR/NC grading only)

ISYS 263 Introduction to Information Systems (Units: 3)
Prerequisite: GE Area B4* or DS 212*.
Application of information systems (IS) in a business environment. Topics include information technology (IT), networks and internetworks, types of information systems and their development, problem-solving using end-user tools, and social impact of IT.

ISYS 339 Information Technology for International Hospitality and Tourism (Units: 3)
Prerequisite: ENG 214 or equivalent.
Information technology needs of international tourism businesses. Internet and information technology that influence multicultural hospitality and tourism worldwide businesses, customer marketing, and hospitality company goals. Emphasis on e-marketing, e-commerce, and online information distribution to commercial success.
(This course is offered as HTM 339 and ISYS 339. Students may not repeat the course under an alternate prefix.)

Course Attributes:
• UD-D: Social Sciences
• Global Perspectives

ISYS 350 Building Business Applications (Units: 3)
Prerequisite: ISYS 263 with a grade of C- or better.
Development of a multi-tier e-business application using high level tools. Design and implement a business rule tier, presentation tier, and data access tier in order to rapidly deliver innovative and extensible business solutions. Mini-projects culminate into a complete solution for an e-business application.

ISYS 363 Information Systems for Management (Units: 3)
Prerequisites: ISYS 263* and ACCT 100* with grades of C- or better.
Information systems for management decision-making. Information system development from the end-user's perspective. Applications software used to develop solutions to business problems.

ISYS 412 Application Development for Data Analytics (Units: 3)
Prerequisites: Restricted to upper-division standing; ISYS 350* and ISYS 363* with grades of C- or better.
Development of business applications with an emphasis for data analytics. Application development tools and analytics libraries. Selection of tools and libraries will vary based on instructor preference.

ISYS 463 Information Systems Analysis and Design (Units: 3)
Prerequisites: ISYS 350 and ISYS 363 with grades of C- or better.
Analysis and design of computer-based information systems.
ISYS 464 Managing Enterprise Data (Units: 3)
Prerequisites: ISYS 363 and ISYS 350 with grades of C- or better.

Principles and use of database management systems in business.
Database design and implementation. Database definition, manipulation
and control using SQL. (Plus-minus letter grade only)

ISYS 471 E-Commerce Systems (Units: 3)
Prerequisite: ISYS 363 with a grade of C- or better.

Electronic commerce systems including E-commerce models, the
technologies behind E-commerce, and planning and implementing E-
commerce systems.

ISYS 475 Building Web Applications with Open Source Software (Units: 3)
Prerequisites: ISYS 363 and ISYS 350 with grades of C- or better.

Concepts, techniques, and tools to develop Internet-oriented business
application systems with emphasis on the web.

ISYS 512 Business Application Design and Development with .NET
(Units: 3)
Prerequisites: ISYS 350 and ISYS 363 with grades of C- or better.

Theory and practice of distributed business application design and
development. Architecture and components of a business application
system, how to design and develop a business application, and how to
develop the web-based components of a business application. (Plus-
minus letter grade only)

ISYS 556 Building Mobile Business Applications (Units: 3)
Prerequisites: Restricted to upper-division standing; ISYS 350 or one
semester of programming with a grade of C- or better.

Design and develop applications for mobile devices including tablet
computers and smartphones. Building successful business applications
for mobile devices that interfaces with the backend system. [Formerly
ISYS 573 - Topic: Building Mobile Business Applications]

ISYS 557 Managing Open Source (Units: 3)
Prerequisites: Restricted to senior standing; ISYS 363.

Detailed study of the management of open source software and related
processes: open source management issues, integration of open and
proprietary software, licensing, copyright and intellectual property rights.
Also examines open source business models in the enterprise. [Formerly
ISYS 573 - Topic: Managing Open Source]

ISYS 565 Managing Enterprise Networks (Units: 3)
Prerequisite: ISYS 363 with a grade of C- or better.

Hardware and software for communications and their application
to the distributed data processing environment. Terminal-to-host
communication, local and wide area networks, transaction processing
monitors.

ISYS 567 Information Systems Internship (Units: 3)
Prerequisites: ISYS 363; completed an application form; a minimum GPA
of 3.0 in ISYS courses; consent of instructor.

Provides Information Systems majors the opportunity to participate in a
field experience in their chosen concentration. Major report required.

ISYS 568 Multimedia Business Applications Development (Units: 3)
Prerequisite: ISYS 363 with a grade of C- or better.

Methodology and tools for the development of multimedia business
applications.

ISYS 569 Information Systems for Business Process Management (Units:
3)
Prerequisite: ISYS 363 with a grade of C- or better.

Design of information systems that closely aligned with business
processes; business modeling languages and techniques; real world
applications. (Plus-minus letter grade only)

ISYS 575 Information Security Management (Units: 3)
Prerequisites: ISYS 363 and ISYS 565 with a grade of C- or better.

Information security from a management perspective. Identification of
organization’s information assets, threats to these assets, information
security strategy to protect assets.

ISYS 650 Business Intelligence (Units: 3)
Prerequisite: ISYS 363.

Analysis and design of business intelligence systems that are aligned
with business processes. Identification and use of business data,
(re)design of information and knowledge systems, business modeling
methodology. (Plus-minus letter grade only)

ISYS 663 Information Technology Project Management (Units: 3)
Prerequisite: ISYS 350 or ISYS 363 with a grade of C- or better.

Managing information technology projects including both technical and
behavioral aspects, Managing IT project scope, cost, time, quality, risk,
human resources, communications, procurement, and outsourced IT
projects. Senior IT management role.

ISYS 699 Independent Study (Units: 1-3)
Prerequisite: Consent of instructor, adviser, and department chair.

Intensive problem analysis under the direction of a business computer
information systems faculty member. Open only to upper division
students who have demonstrated ability to do independent work.

ISYS 812 Programming and Applications for Data Analytics (Units: 3)
Prerequisites: Restricted to Graduate Business students; ISYS 363 or one-
semester of programming. Graduate students in other programs admitted
with the consent of the Faculty Director of Graduate Programs.

Fundamental programming, data processing and business applications
development with an emphasis on data analytics. Application
development tools and analytics libraries. Selection of tools and libraries
will vary based on instructor preference. (Plus-minus letter grade only)

ISYS 814 Information Systems for Strategic Advantage (Units: 3)
Prerequisites: Restricted to Graduate Business students; BUS 782.
Graduate students in other programs admitted with the consent of the
Faculty Director of Graduate Programs.

In-depth treatment of three topics: derivation of an Information Systems
(IS) strategy, specification of information system requirements, and
design and implementation of an information-based solution. (Plus-minus
letter grade only)

ISYS 850 Seminar in Business Intelligence (Units: 3)
Prerequisites: Restricted to Graduate Business students; BUS 782.
Graduate students in other programs admitted with the consent of the
Faculty Director of Graduate Programs.

Tools and techniques for extracting business intelligence from data to
support strategic decision making. Applications of business intelligence
and analytics methodologies in different functional areas. Managerial
implications. (Plus-minus letter grade only)
ISYS 856 Enterprise Mobile Applications (Units: 3)
Prerequisites: Restricted to Graduate Business students; BUS 782. Graduate students in other programs admitted with the consent of the Faculty Director of Graduate Programs.
Focus on mobile enterprise technologies in the workplace that enable new business models to connect customers and enterprises; Design Thinking methodology to facilitate the creative design of enterprise mobile strategy and solutions; employment of Enterprise Resource Planning (ERP) mobile development platform to help prototype and develop innovative mobile solutions. Activity. (Plus-minus letter grade only)

ISYS 864 Data Management for Analytics (Units: 3)
Prerequisite: ISYS 363 or ISYS 812 or equivalent.
Fundamentals of database management in the context of business analytics processing with an introduction to the principles, design, security, and use of database management systems in business with an emphasis on Big Data Management. (Plus-minus letter grade only)

ISYS 869 Business Process Management (Units: 3)
Prerequisites: Restricted to Graduate Business students; BUS 782. Graduate students in other programs admitted with the consent of the Faculty Director of Graduate Programs.
Design of business processes and their implementation through change management. Modeling and analysis of business processes. (Re)design and implementation of systems that enable them. Business modeling languages and techniques. (Plus-minus letter grade only)

ISYS 871 Electronic Commerce (Units: 3)
Prerequisites: Restricted to Graduate Business students; BUS 782. Graduate students in other programs admitted with the consent of the Faculty Director of Graduate Programs.

ISYS 882 Managing the Digital Enterprise (Units: 3)
Prerequisites: Restricted to Graduate Business students; ISYS 814 or equivalent. Graduate students in other programs admitted with the consent of the Faculty Director of Graduate Programs.
Principles and practice of managing information technology and digital enabled processes of an enterprise. Strategic, tactical, and operational planning for integration of IT throughout an enterprise.

ISYS 895 Research Project in Information Systems (Units: 3)
Prerequisites: ISYS 814 and three 800-level required courses in student’s emphasis. Open only to computer information systems and electronic commerce MSBA candidates; consent of instructor and approval of Advancement to Candidacy (ATC) and Culminating Experience (CE) forms by Graduate Studies.
Research methodology and supervised research culminating in oral and written presentations. Advancement to Candidacy and Proposal for Culminating Experience Requirement forms must be approved by Graduate Studies before registration. (Plus-minus letter grade; no CR/NC allowed; RP)

ISYS 899 Independent Study (Units: 1-3)
Prerequisite: Consent of instructor, adviser, and department chair.
Intensive study of a particular problem under the direction of an Information Systems faculty member. Open only to graduate students of demonstrated ability to do independent work. (Plus-minus letter grade only)