

## Information Systems

College of Business ■ Undergraduate Programs

### Degrees and Programs Offered

Bachelor of Science in  
Business Administration:  
Concentration in  
Information Systems  
Minor in  
Business Information Systems  
Master of Business Administration  
Informations Systems Emphasis  
Master of Science in  
Business Administration  
Informations Systems Emphasis

### Career Options

**Programmer/Analyst**  
Careers in developing, testing and maintaining IS applications that support on-going business operations, such as order entry, inventory control, material requirements planning, billing and accounting systems.

**Technology/Business Analyst**  
Careers in developing and implementing information systems that deliver a high-level of tactical and strategic value to the successful management of organizations.

**Database Analyst/Administrator**  
Careers in managing database resources, analyzing data relationships and reducing data redundancy.

**Help Desk/Technical Support Specialist**  
Careers as IT support persons providing training and ongoing support in the use of application packages. Often, technical support specialists help professionals in functional areas such as accounting, finance, marketing and management develop their own applications.

**Network Design**  
Careers in the management of IS networks (connected and wireless) and how to maintain their security.

**Web Application Developer**  
Careers in the design and development of web applications.

**Information Systems Manager**  
Careers as project managers and group managers, overseeing the individuals in the technical careers above.

### Goals and Emphases of the Concentration

The information systems concentration prepares students for multiple careers that require an aptitude for analytical thinking and a strong working competency in information systems. It is designed to produce a person with technical and managerial skills in business application development, project management, application analysis and design, data management, and network and security management. Graduates qualify for and are productive in careers that include technology/business analyst, programmer/analyst, database analyst/administrator, network administrator, and help desk/technical support specialist. The concentration emphasizes technical knowledge of information system components and infrastructure; application and development skills; high-level competencies in applying information systems analysis and systems design strategies and techniques; understanding the information needs and delivery systems within business organizations; understanding the business/organizational context of information systems; communications and human relations skills for working with and managing people and projects in virtual teams; and education and desire for lifelong learning and professional and personal development.

Over the next decade, the greatest demand in the information systems field will be for persons who have information technology skills supported by solid understanding of the business framework for information solutions. By following this program of carefully structured courses, the student, upon graduation, will be eligible for any number of stimulating, high-salaried positions in this rapidly changing and constantly expanding field.

### What Aptitudes Contribute to Successful Completion of this Concentration?

One must have the ability to work with others in describing ongoing systems, the insight to determine needed changes for systems, and the means to study the feasibility of making changes in systems or creating new systems. Analytical thinking is needed to logically reduce complex business tasks to more manageable levels in order to design efficient and user-friendly computer systems. Communication skills are essential to describe developed systems to users, to prepare written documentation that users of systems will easily understand, and to assist personnel in the use of applications software.

### What is Unique about the Concentration?

This program offers an in-depth study of information systems, tools and applications. In addition, students may take a paid, for-credit internship course or a culminating software projects course requiring the application of concepts learned earlier. This is one of the few undergraduate programs that offers such project experience.

### Program Requirements

The Bachelor of Science in Business Administration requires a minimum of 120 units for graduation. All majors in business are required to complete a minimum of 63 lower- and upper-division units in business and economics, including work in the major field and elective courses, as well as six units of prerequisite courses.

Approved community college courses may be substituted for the courses marked with an asterisk (\*). Lists of acceptable courses from nearby community colleges may be obtained by visiting the College of Business Student Services Web site: [cob.sfsu.edu](http://cob.sfsu.edu) or [www.assist.org](http://www.assist.org). For colleges not included on the list, a detailed description of the course must be submitted to an advisor in the College of Business for evaluation. Community college courses are not accepted to meet the requirements of any upper division course (numbered 300 or above).

### Bachelor of Science in Business Administration: Concentration in Information Systems

#### Prerequisites to Core Courses

DS 110 Mathematical Analysis  
for Business  
or  
MATH 110 Business Calculus  
ECON 100 Introduction to  
Macroeconomic Analysis  
ISYS 263 Introduction to  
Information Systems

#### Core Courses (42 units)

ECON 101 Introduction to  
Microeconomic Analysis  
ACCT 100 Principles of  
Financial Accounting  
ACCT 101 Principles of  
Managerial Accounting  
DS 212 Business Statistics I  
IBUS 330 International Business and  
Multicultural Relations

continued on reverse



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## FOR MORE INFORMATION

### Department of Information Systems

BUS 310  
415-338-2138  
E-mail: [is@sfsu.edu](mailto:is@sfsu.edu)  
Web: <http://is.sfsu.edu/>

### How to apply

Apply online through CSUMentor: [www.csumentor.edu](http://www.csumentor.edu). It's the easiest and fastest way to apply. For more information about SFSU admissions, visit the SFSU Prospective Student Web site: [www.sfsu.edu/prospect](http://www.sfsu.edu/prospect).

### Reaching SFSU by mail

To reach any SFSU department or program by mail, write to the specific office, followed by:  
San Francisco State University  
1600 Holloway Avenue  
San Francisco, CA 94132

### By phone

University Information  
415/338-1111

### Admissions Office

415/338-1113  
E-mail: [ugadmit@sfsu.edu](mailto:ugadmit@sfsu.edu)

### SFSU on the Internet

For access to the University Bulletin (catalog), Class Schedule, and other campus information, visit SFSU on the Web: [www.sfsu.edu](http://www.sfsu.edu)

FIN 350	Business Finance
BUS 360	Business Communication
ISYS 363	Information Systems for Management
MGMT 405*	Introduction to Management and Organizational Behavior
MGMT 407* or DS 411	Economics for Managers Decision Modeling with Spreadsheets
DS 412	Operations Management
MKTG 431	Marketing
BUS 682*	Seminar in the Environment of Business
BUS 690*	Seminar in Business Policy and Strategic Management

### Concentration Course Requirements

Students must have a minimum grade point average of 2.0 in all concentration courses.

Undergraduate majors may not take departmental concentration courses on a CR/NC basis (unless that is the only grading option available).

### Required Courses (15 units)

ISYS 350	Building Business Applications
ISYS 463	Information Systems Analysis and Design
ISYS 464	Managing Enterprise Data
ISYS 565	Managing Enterprise Networks
ISYS 663	Information Technology Project Management

### Information Systems Electives (6 units)

Selected with prior written approval of an IS advisor from the following:

ISYS 366	Building Advanced Business Applications with COBOL
ISYS 367	Building Advanced Business Applications with Java
ISYS 368	Building Advanced Business Applications with C#
ISYS 475	Internet and World Wide Web Business Applications
ISYS 512	Business Application Design and Development with .NET
ISYS 561	Object-oriented Business Applications Development
ISYS 564	Information Systems Projects
ISYS 567	Information Systems Internship
ISYS 568	Multimedia Business Applications Development
ISYS 569	Information Systems for Business Process Management
ISYS 573	New Advances in IT in Organizations (Any ISYS 573 topic)
ISYS 582	Information System Issues for Global Business
ISYS 639	Software Testing and Quality Assurance
ISYS 650	Business Intelligence
ISYS 675	Information Security and Governance

**Total for Major**

**63**

Other courses related to the fields of information systems and decision sciences may be substituted for one or more elective courses with prior written approval of an IS advisor. No elective may be a lower division course.

**NOTE:** No more than twelve (12) units may be counted towards both an information systems and an electronic commerce systems concentration.

## Minor in Information Systems

A minimum 2.0 GPA is required for the Information Systems minor and at least 50 percent of courses must be taken in residence. Except in cases of credit by examination, no more than six units of the Information Systems minor may be completed on a CR/NC basis.

### Required Courses (12 Units)

ACCT 300	Accounting and Finance Reporting
ECON 305	Economic Analysis for Non-majors
ISYS 263	Introduction to Information Systems
MGMT 405	Introduction to Management and Organizational Behavior

Selected from the following: (3 units)

ISYS 268	Introduction to Business Computer Programming with C#
ISYS 267	Introduction to Business Computer Programming with Java
CSC 210	Introduction to Computer Programming

Selected from the following: (9 units)

ISYS 350, 363, 365, 366, 367, 463, 464, 472, 475, 546, 561, 562, 565, 567, 568, or 573.

Other courses related to the fields of business information systems and decision sciences may be substituted for one or more elective courses with prior written approval of an IS advisor. No elective may be a lower division course.

**Total for Minor**

**24**

## Internships

A few paid internships are available each semester through the department. Interns work part-time for a participating company to gain valuable experience in the business information systems area. Typically, interns do applications programming, document systems under design, or work on a variety of tasks to assist a project team.

Students are also encouraged to seek out internship positions through their own efforts because an internship experience considerably enhances a student's prospect in obtaining better job placements upon graduation.