

AREA CHAIR: MARK S. SILVER, ASSOCIATE PROFESSOR

The Master of Business Administration in Information Systems Program consists of 69 credits. Rapid advances in information and communication technologies over the last quarter-century have had a dramatic effect on business and the economy. Due to the combination of technological advancement and globalization, we have seen the emergence of new types of markets, new ways of organizing business processes, new ways of reducing risk, new thinking on how to compete in the marketplace and new work environments. We have also experienced an increased emphasis on knowledge systems to support management and operations.

The Information Systems curriculum addresses the role of Information Technology (IT) in supporting business strategy and the challenges and opportunities that arise in deploying and managing IT. Students in this program will learn to recognize new business opportunities created by IT, evaluate and select the appropriate technologies for specific business applications, lead implementation projects and manage IT operations. Given the many business implications of IT, the curriculum is designed to afford individual students flexibility to focus on those aspects of IT of greatest personal interest and value.

## MBA IN INFORMATION SYSTEMS

### PROGRAM PREREQUISITES (three courses, nine credits)

- BE 6220 Managerial Economics (see page 32)
- DG 6810 Mathematical Methods for Business (see page 45)
- DG 6820 Statistics (see page 45)

### MBA CORE BUSINESS COURSES (required) (eight courses, 24 credits)

- AC 6111 Fundamentals of Accounting (see page 18)
- BL 6310 Business Law I (see page 50)
- FN 6411 The Financial Environment (see page 29)  
(Prerequisite AC 6111)
- IS 6910 Management Information Systems (see page 39)
- MG 6613 Fundamentals of Management (see page 43)  
(Prerequisites BE 6220 & DG 6820)
- MK 6710 Marketing Management (see page 47)  
(Prerequisite BE 6220)
- MG 6627 Operations Management (see page 43)  
(Prerequisite MG 6613)
- MG 7660 Business Policy (see page 44)  
(Prerequisites all core courses)  
*MG 7660 Business Policy, the capstone course of the MBA, should be taken as close to the end of the program as possible and only after the other core courses have been completed. Because of its integral importance to the program, this course will not be waived.*

### CONCENTRATION (five courses, 15 credits)

Students can organize their course work along one of three recommended tracks:

1. Enabling Technologies
2. Information Technology Management
3. E-Business

All students concentrating in Information Systems must take two required courses plus a minimum of three elective courses appropriate for their track. Those wishing to customize their programs require approval of their advisor and the area chair.

### REQUIRED COURSES

All students are required to take the following two courses:

- IS 7902 Systems Development
- IS 7910 Information Systems Strategy and Management

*Note: INSY 7902 should be taken early in the program, whereas INSY 7910 is typically taken toward the end of the program.*

### ELECTIVE COURSES

Three or more courses should be chosen as a cluster to support a specific track within the Information Systems area. Current offerings allow for the following tracks:

#### 1. Enabling Technologies

The Enabling Technologies track addresses the needs of students who plan careers in IT working as business analysts, systems implementers, consultants, or in other positions requiring a mix of solid business skills and technology analysis/implementation skills.

#### Suggested Electives

- IS 7941 Communication Networks and Distributed Systems
- IS 7973 Database Management

One or more related courses:

- IS 7905 Web and E-Business Technologies
- IS 7955 Project Management
- IS 7975 Business Analytics for Managers
- IS 7985 Data Warehousing

## 2. Information Technology Management

The Management of Information Systems track addresses the needs of students who plan careers in developing IT strategy and managing information systems projects. As such, this track emphasizes foundation and technical skills as well as management, strategic planning and execution skills so companies can realize the anticipated benefits from technology investments.

*Suggested Electives*

IS 7945 Business Design through Information Technology

IS 7955 Project Management

*One or more related courses:*

IS 7975 Business Analytics for Managers

MG 7675 Strategic Management of Innovations and Technology

MG 769X Special Topics in Systems Management  
(Supply Chain Management)

## 3. E-Business

This track addresses the needs of students who plan careers in designing and implementing e-Business solutions, including customer-facing technologies and integrated supply chain management.

*Suggested Electives*

IS 7901 E-Business Strategies and Applications

IS 7905 Web and E-Business Technologies

*One or more related courses:*

IS 7941 Communication Networks and Distributed Systems

IS 7945 Business Design through Information Technology

IS 7975 Business Analytics for Managers

IS 799X Special Topics in Information Systems (CRM Systems)

### BREADTH ELECTIVES (five courses, 15 credits)

Breadth electives are advanced-level courses outside the concentration. Students are limited to a maximum of two courses from a single area. Students may select electives from specified International Business courses, subject to area distribution requirements, to receive an International Business designation on their official transcripts (see page 10). With approval of an academic advisor, students may take graduate courses that relate to their professional objectives offered by other schools of the University.

### FREE ELECTIVES (two courses, six credits)

These credits enable students to take advanced-level courses of their choice in their concentration, elective areas or both, subject only to individual course prerequisites. They are not subject to the breadth elective distribution requirement or concentration requirements. Students should consider using free elective credits to take additional courses from the Information Systems area and breadth elective credits from other areas to augment the cluster of courses within the Information Systems track. Thus, students specializing in the Management of Information Systems track should consider taking the Technology and Innovation Management course from the Management Systems area. Students specializing in the E-Business track should consider taking the Supply Chain Management course from the Management area, the E-Marketing course from the Marketing area and the New Media course from the Communications and Media Management area.

## JOINT MBA AND MS IN INFORMATION SYSTEMS

The Joint MBA and Master of Science in Information Systems (MSIS) provides technical and business skills to students who plan to pursue a career in the management of Information Technology. This program caters to students who would like to complement their MBA degree with an in-depth knowledge of IT. Please contact the Office of Academic Advisement for more information at (212) 636-6104.

### ADMISSION REQUIREMENTS

Students seeking admission to the joint-degree program must satisfy all admission prerequisites for the MBA Program. The MBA courses taken while in the program will satisfy other admission prerequisites for the MSIS Program.

### DEGREE REQUIREMENTS

Students seeking a Joint MBA and MSIS Degree must complete 25 courses and prerequisites (84 credits) chosen so that requirements of both the MBA and MSIS Programs are satisfied. The MSIS Program requires completion of ten graduate-level courses. These courses include six required courses (18 credits) divided among management of technology, systems development and technology areas, plus four electives (12 credits) from the Information Systems area, other areas in Fordham Graduate School of Business Administration or other graduate schools within the University. Students are encouraged to choose electives that balance their base of knowledge. Those with a technical background but little business background, for example, should use business courses for electives, and students with a business background but little technical background should use advanced information systems and computer science courses.

No more than five courses can be counted toward both programs.

A full-time student taking three to four courses at a time can finish the joint-degree program in seven to eight trimesters.

### MINIMUM RESIDENCY REQUIREMENTS

To complete the Joint MBA and MSIS degree, a student must satisfy the minimum residency requirement of 60 credits. Program prerequisite courses cannot be applied toward the minimum residency requirement.

### CORE COURSES (18 credits)

#### Management of Technology

IS 7910 Information Systems Strategy and Management

IS 7945 Business Design through Information Technology

IS 7955 Project Management

#### Systems Development

IS 7902 Systems Development

#### Technology

IS 7941 Communication Networks and Distributed Systems

IS 7973 Database Management

**ELECTIVE COURSES** (12 credits)

Students may choose any four graduate courses from the Information Systems area. Courses from other areas in Fordham Graduate School of Business Administration and other schools and departments at Fordham that have significant components of management and/or technology can also be used as electives with the permission of the academic advisor.

Courses available within the Information Systems area:

- IS 7901 E-Business Strategies and Applications
- IS 7905 Web and E-Business Technologies
- IS 7931 IS Consulting and Organizational Design
- IS 7970 End-User Applications
- IS 7975 Business Analytics for Managers
- IS 7980 Business Modeling with Advanced Spreadsheet Methods
- IS 7982 Human Side of ICS
- IS 7985 Data Warehousing
- IS 799X Special Topics in Information Systems  
(Recent Special Topics courses have included Information Security and Privacy Controls for Managers, Enterprise Integration and IT in the Financial Services Industry)

*Note: Several of these courses are not offered every year. Students should consult the area chair for further information about the course offerings.*

Courses in other areas that are appropriate as electives include:

- MG 7675 Strategic Management of Innovations and Technology
- MG 769X Special Topics in Systems Management

**Information Systems Courses**

*Each course carries three (3) credits unless otherwise indicated.*

**IS 6910 Management Information Systems (MBA REQUIRED COURSE)**

Helps students participate meaningfully in business dialogues and decisions that involve, or could profit from, information technologies. Because information technologies continually change basic ways of doing business, the course emphasizes the organizational impact of information resource decisions and the challenges in managing information resources. Topics include strategic use of information systems, hardware, software, data resources, networks, systems development methodologies, knowledge management, ethics and IT in transnational firms.

**IS 7901 E-Business Strategies and Applications**

Introduces students to concepts, issues and technologies essential to conducting business in information-enabled economies. Students look at the transformation of traditional marketplaces into electronic market spaces, from traditional supply chains to virtual alliances and industrial webs, from traditional product focus to mass customization. Reviews common e-business applications, such as customer relationship management, Enterprise Resource Planning (ERP), e-procurement, supply chains and web portals. Issues discussed include the reactions of consumers to e-retailing, regulatory and tax concerns, use of vertical and horizontal exchanges in managing supplier-customer interactions, security and privacy concerns, digital rights management and mobile commerce. This course has a global perspective: many case studies focus on international issues in a variety of business sectors, including retailing, financial services and information services.

PREREQUISITE: IS 6910.

INTERNATIONAL BUSINESS COURSE.

ELECTRONIC BUSINESS COURSE.

**IS 7902 Systems Development**

Examines tools and methods for developing information systems applications. Emphasizes understanding core issues in developing IT solutions to business problems. Part of the course focuses on tools for developing architecture and models to describe organizational structure, organizational processes, workflows and organizational data. Another part focuses on acquiring information resources to support organizational processes. Topics include identifying possible IT solutions to business problems, cost-benefit analysis, sourcing options, systems development approaches, documenting systems requirements, developing systems specifications and managing systems development projects. Students learn concepts in the context of an applied group project. Involves the use of computer-assisted software engineering (CASE) tools for modeling requirements and specifications of information systems.

PREREQUISITE: IS 6910.

**IS 7905 Web and E-Business Technologies**

Begins with a brief review of e-business models and applications, such as online purchasing, customer relationship management, electronic marketplaces, application service providers, supply chains, enterprise resource planning and enterprise portals. Studies enabling technologies, such as Web, XML, Semantic Web, HTML, wireless web and XML web services. Also discusses web-based platforms for e-commerce, B2B trade and mobile applications. Reviews emerging XML standards, such as ebXML, Rosettanet and Biztalk, and web-based platforms, including Dot Net and J2EE. Students experience the systems development lifecycle while developing a website to meet business requirements and review real-life examples and case studies.

PREREQUISITE: IS 6910.

ELECTRONIC BUSINESS COURSE.

ENTREPRENEURSHIP COURSE.

**IS 7910 Information Systems Strategy and Management**

Focuses on issues of aligning business and technology strategies.

Addresses how IT supports business strategy and business processes, the role of the CIO, systems integration, outsourcing, the value of IT, selection of technologies IT strategy and infrastructure, dealing with emerging technologies and organizational issues surrounding technology implementations. This is the Information Systems area capstone course.

PREREQUISITE: IS 6910.

**IS 7931 IS Consulting and Organizational Design**

Examines the process of successfully introducing information technology into a business environment, which requires both technical competence and the ability to collaborate with users to identify their most crucial needs and implement appropriate solutions. Students apply concepts of analysis, contracting, design and development, project management and implementation, together with effective presentation techniques, to information systems.

PREREQUISITE: IS 6910.

**IS 7941 Communication Networks and Distributed Systems**

Focuses on next-generation technologies with special attention to communication networks. Distributed Computing Systems (DCS) are used to connect many different and independent computers, databases and applications over networks to support business activities. The first part of the course highlights the role of networks in modern enterprises and discusses such topics as communication network technologies, network architectures and network interconnectivity, the Internet and its variants (public Internet, Intranet and Extranets), broadband networks and wireless networks (cellular networks, satellites, wireless LANs). The second part of the course discusses how enterprise applications and databases are interconnected through middleware services that reside above networks. Topics include distributed computing, client/server systems and web-based distributed and mobile applications. The topics of this course continually evolve to reflect the latest business and technical trends.

PREREQUISITE: IS 6910.

ELECTRONIC BUSINESS COURSE.

ENTREPRENEURSHIP COURSE.

**IS 7945 Business Design through Information Technology**

Explores the major issues related to business design. In the face of relentless competition, objectives of marginal improvement must now give way to efforts to achieve very high productivity levels in a firm's key processes. Business must be viewed not in terms of functions, divisions and products, but of key processes. Achievement of higher levels of improvement in these processes means redesigning them from beginning to end, employing whatever innovative technologies and organizational resources are available. This course examines: (1) the need for an enterprise-wide perspective on providing products and services; (2) techniques aimed at improving design, production and delivery processes; and (3) the application of information technology as an enabler of process innovation.

PREREQUISITE: IS 6910.

ELECTRONIC BUSINESS COURSE.

GLOBAL SUSTAINABILITY COURSE.

**IS 7955 Project Management**

Provides the skills project managers need to complete projects on time and on budget. Technology improvements in organizations are implemented through projects, and strong project management skills are a key success factor for companies to achieve the expected benefits from their technology investments. Topics include setting and maintaining project scope, developing work plans, estimating required resources, developing work programs, organizing project teams, super-users, monitoring and controlling projects, maintaining relationships with users and management, status reporting and key factors for realizing the anticipated benefits from the investment. Students use a computer-based project management tool as part of this course.

PREREQUISITE: IS 6910.

**IS 7970 End-User Applications**

Addresses the business opportunities of end-user computing and related management issues. More than 40 percent of the annual expenditure on information technology in the typical large corporation now falls outside the information services budget. Personal computers, desktop publishing office technology and electronic mail are examples of IS applications that need to be managed by end-user business units.

*Note: This course is not offered every year. Students should consult the area chair for further information about the course offering.*

PREREQUISITE: IS 6910.

**IS 7973 Database Management**

Covers the basics of database management, a critical element of all IT organizations. Databases are the foundation for operational/transaction systems and for management decision-making. Topics include types of databases and the database environment, database analysis and data modeling, database design with relational models, implementation issues such as SQL, data administration, the Internet database environment and distributed databases.

PREREQUISITE: IS 6910.

**IS 7975 Business Analytics for Managers**

Introduces the concepts of business analytics and such related concepts and techniques as business intelligence, data analytics, data warehousing, data-mining and online analytical processing (OLAP). The course explores the process, contents, and context of managerial decision-making and looks at how business analytics can help in improving management decision-support effectiveness in the various functional areas of business such as marketing, finance and manufacturing. Managers in general—not just IT professionals—stand to gain from the discussion. Students gain hands-on experience in the use of a comprehensive set of Business Intelligence (BI) tools.

PREREQUISITE: IS 6910.

**IS 7980 Business Modeling using Advanced Spreadsheet Methods**

Covers the vital role of advanced spreadsheet methods in business modeling and decision-support. Students learn to build and analyze decision-making models using a spreadsheet package (Excel), with extensive hands-on use of the package and add-ins. Students model and solve representative practical problems covering key business functions such as accounting and finance, sales and marketing, management and operations and human resources. Topics include various advanced spreadsheeting functions, “what-if” analysis, list and data management tools, Solver and sensitivity analysis, simulation and forecasting models.

PREREQUISITE: A BASIC UNDERSTANDING OF MICROSOFT EXCEL.

**IS 7985 Data Warehousing**

Provides an advanced, comprehensive overview of data warehousing along with in-depth discussion of critical issues in planning, design, deployment and ongoing maintenance. Students gain a clear understanding of techniques for data extraction from source systems, data cleansing, data transformations, data warehouse architecture and infrastructure, and the various methods for information delivery. Additional concepts discussed include data marts, real-time information delivery, data visualization, requirements gathering methods, multi-tier architecture, OLAP applications, Web click-stream analysis, data warehouse appliances, and data-mining techniques. Students undertake hands-on exercises and projects in commercial data warehousing modeling and implementation tools and perform case analyses.

PREREQUISITE: IS 6910.

**IS 7982 Human Side of ICS**

Studies the human side of the effective implementation of new information technologies. Advances in information technology are often ahead of our ability, as humans and social beings, to keep up with the massive changes in work life, organizational processes, marketplaces and personal lives. This course is designed to help students become effective facilitators of change and to emphasize the human side of information technology. It is now known that systems are more likely to fail because of organizational reasons than for technical reasons. This course deals with the impact of IT on people and society. It examines the legal, ethical and social issues that result from rapid technological advances. It also looks at change-management issues in an organization and user interface design issues.

*Note: This course is not offered every year. Students should consult the area chair for further information about the course offering.*

PREREQUISITE: IS 6910.

**IS 7989 IS in the Transnational Firm**

Provides practical guidelines for managers to integrate international business with IS planning and operations. As businesses increasingly operate globally, corporations with transnational business strategies must also develop transnational IS. Today’s managers need to coordinate international telecommunications and IS operations as well as exploit the organizational and economic opportunities IS creates for businesses that operate globally.

PREREQUISITE: IS 6910.

INTERNATIONAL BUSINESS COURSE.

**IS 799X Special Topics in Information Systems**

These courses are offered periodically to permit faculty and students to explore topics of interest in information systems. The specific topic and prerequisites are announced when the course is offered.