

Information Systems and Technology BS

The Information Systems (IS) area endeavors to prepare high-potential students of diverse backgrounds for successful careers in the IS profession. Careers in IS may include programming, systems analysis and design, database administration, end-user support, network administration, and management consulting. The goal is to provide students with the skills to deal with the challenges confronting IS through teaching, research, and service to the profession.

General Education Requirements

All Business majors must meet the university general education requirements. As part of meeting the university's general education requirements, all Business majors must complete the prerequisite courses below :

ECON 1001	Principles of Microeconomics (MOTR ECON 102)	3
ECON 1002	Principles of Macroeconomics (MOTR ECON 101)	3
MATH 1030	College Algebra (MOTR MATH 130)	3
MATH 1100	Basic Calculus	3
MATH 1105	Basic Probability and Statistics	3

Degree Requirements

All Business majors must meet College of Business G.P.A., good standing and credit requirements as outlined in the Bulletin.

Lower Division Business Core Requirements

ACCTNG 2400	Fundamentals of Financial Accounting	3
ACCTNG 2410	Managerial Accounting	3
BUS AD 2900	Legal Environment of Business	3
INFSYS 2800	Information Systems Concepts and Applications	3
Total Hours		12

Upper Division Requirements

ENGL 3120	Business Writing	3
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Upper Division Non-Business or Business Requirement

Two global awareness courses selected from an approved list maintained in the Office of Undergraduate Academic Advising in the College of Business Administration; also available on our web site.

Upper Division Business Requirements

ENT 3100	Applications of Entrepreneurship ¹	3
FINANCE 3500	Financial Management	3
SCMA 3300	Business Analytics and Statistics	3
SCMA 3301	Introduction to Supply Chain Management	3

MGMT 3600	Management and Organizational Behavior	3
MGMT 4219	Strategic Management	3
MKTG 3700	Basic Marketing	3
A minimum of 15 additional hours of upper division approved business electives		15

Total Hours **36**

¹ Course is required for BS Accounting and all BS Business Administration majors.

Assessment Requirement

MGMT 4220	Business Assessment Testing	0
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Specific Requirements for the Major

Required Courses

INFSYS 3806	Managerial Applications of Object-Oriented Programming I	3
INFSYS 3810	Information Systems Analysis	3
INFSYS 3816	Managerial Application of Object-Oriented Programming II	3
INFSYS 3820	Introduction to Systems Administration	3
INFSYS 3830	Data Programming	3
INFSYS 3848	Introduction to Information Security	3
INFSYS 3842	Data Networks and Security	3
INFSYS 3845	Database Management Systems	3
INFSYS 4850	Information Systems Design	3
INFSYS 4847	IT Project Management	3

Total Hours **30**

¹ Seminars and Independent Studies are restricted to those offered by and approved by the Area faculty and approved by the Area Coordinator.

Academic Tracks within the Information Systems and Technology Major

Information Systems and Technology majors may choose to focus their elective hours in a particular sub-discipline of information systems and technology, or academic track. These tracks are groups of departmental courses that fit within sub-disciplines of information systems and technology and are recommendations for students wanting to pursue careers in specific sub-disciplines. Academic tracks are NOT majors and are only intended to serve as guides for courses within a particular area of information systems and technology and are represented by current faculty expertise. Selecting an academic track does not prevent a student from taking courses in another track. Students should not expect to take all recommended courses for each academic track. Students may choose not to select an academic track.

Application Development Track (pick 2)

INFSYS 3830	Data Programming	3
INFSYS 3844	Developing Business Applications in .NET	3
INFSYS 3818	Management of Software Testing	3
INFSYS 3868	Secure Software Development	3

Business Intelligence Track (pick 2)

INFSYS 3830	Data Programming	3
INFSYS 3843	Decision Support Systems for Business Intelligence	3
INFSYS 3862	Artificial Intelligence Applications for Business	3

Cybersecurity Track (pick 2)

INFSYS 3820	Introduction to Systems Administration	3
INFSYS 3842	Data Networks and Security	3
INFSYS 3858	Advanced Security and Information Systems	3
INFSYS 3864	Applied Cryptography for Business	3
INFSYS 3868	Secure Software Development	3
INFSYS 3878	Information Security Risk Management and Business Continuity	3

Legacy Systems (COBOL) Track

INFSYS 3807	Legacy Systems	3
INFSYS 3817	Advanced Legacy Systems	3

Self-Directed Learning Track

INFSYS 3890	Internship in Information Systems	1-3
INFSYS 3899	Independent Study in Information Systems	1-3

Web Design Track

INFSYS 3847	Web Design	3
INFSYS 3815	Object-Oriented Applications in Business	3

Learning Outcomes

Upon completion of the program, graduates will be able to:

- Evaluate and implement effective IS leadership principles and strategy.
- Prioritize and propose managerial practices to develop and deploy technological innovations that produce business advantage.
- Explain best practices in systems analysis and design.
- Support and improve current best practices in application development, business intelligence, cybersecurity, and legacy systems.
- Exhibit specialized leadership and technical expertise.

Sample Four Year Plan

First Year			
Fall	Hours	Spring	Hours
MATH 1030		3 BUS AD 1107 or MATH 1100	3
ENGL 1100		3 ECON 1001	3
BUS AD 1000 or ENT 1100		3 INFSYS 2800	3
INFSYS 1800		3 EXPLORE – Humanities & Fine Arts	3
EXPLORE – Humanities & Fine Arts		3 EXPLORE – Math & Sciences	3
INTDSC 1003	1		
	16		15

Second Year			
Fall	Hours	Spring	Hours
MATH 1105		3 ACCTNG 2410	3
ACCTNG 2400		3 BUS AD 2900	3
INFSYS 3806		3 INFSYS 3816	3

ECON 1002	3	INFSYS 3820	3
CORE – Communication Proficiency		3 EXPLORE – Humanities & Fine Arts	3
	15		15

Third Year			
Fall	Hours	Spring	Hours
MGMT 3600		3 FINANCE 3500	3
ENGL 3120		3 MKTG 3700	3
INFSYS 3820		3 INFSYS 3810	3
SCMA 3300		3 SCMA 3301	3
CORE – US History & Government		3 Cultural Diversity Requirement	3
	15		15

Fourth Year			
Fall	Hours	Spring	Hours
INFSYS 4847		3 MGMT 4219 & MGMT 4220	3
INFSYS 4850		3 INFSYS 3842	3
INFSYS 3848		3 INFSYS 3830	3
Elective		6 Elective	5
	15		14

Total Hours: 120

PLEASE NOTE: This plan is an example of what a four year plan could look like for a typical student. Placement exam scores in math as well as the completion of coursework may change the plan. It should not be used in the place of regular academic advising appointments. All students are encouraged to meet with their advisor. All requirements are subject to change.