

# Management Information Systems

## Management Information Systems Major

Management Information Systems concerns the collection, organization, analysis, and dissemination of information for the planning and control of business/organizational operations. The Management Information Systems (MIS) program is designed for students who wish to prepare for professional careers in information processing or information systems in business and government. The program is designed to develop technical skills and administrative insights required for design, development, implementation, maintenance, and management of organizational information systems.

The MIS program at NDSU is a collaborative effort by the faculty of two disciplines: Management Information Systems and Computer Science. The objective is to provide students with both theoretical knowledge and hands-on experience. In addition to the required courses in management information systems and computer science, majors must complete a practicum in the management information systems area. Students pursuing an MIS major typically earn a Computer Science minor.

The Bachelor of Science (B.S.) degree provides sufficient background and skills to support a successful career in technical computing (for example, programmer, systems analyst, or systems designer), systems or network administration, database administration, information technology management, sales, or technical sales support.

## Management Information Systems Minor

The Management Information Systems minor is intended for students who are planning careers that involve more active roles as computer users and evaluators, designers, and/or builders of information systems. The minor will provide exposure to issues relevant to the management of information technologies and the means to achieve organizational goals.

Contact the Department of Accounting, Finance, and Information Systems for specific course and minimum grade point average requirements. A minor approval form is required and can be found on the College of Business (<http://www.ndsu.edu/business>) website.

## Major Requirements

### Major: Management Information Systems

Degree Type: B.S.

Required Degree Credits to Graduate: 130

### General Education Requirements

#### First Year Experience (F):

BUSN 189	Skills for Academic Success (Students transferring in 24 or more credits do not need to take BUSN 189.)	1
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#### Communication (C):

ENGL 110	College Composition I *	3
ENGL 120	College Composition II *	3
ENGL 320	Business and Professional Writing	3
COMM 110	Fundamentals of Public Speaking *	3

#### Quantitative Reasoning (R):

STAT 330	Introductory Statistics *	3
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#### Science & Technology (S):

CSCI 116	Business Use of Computers *	4
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A one-credit lab must be taken as a co-requisite with a general education science/technology course unless the course includes an embedded lab experience equivalent to a one-credit course. Select from current general education list.

#### Humanities & Fine Arts (A):

PHIL 216	Business Ethics *	3
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Select from current general education list 3

#### Social & Behavioral Sciences (B):

ECON 201	Principles of Microeconomics *	3
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ECON 202	Principles of Macroeconomics *	3
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Wellness (W): Select from current general education list 2

Cultural Diversity (D): Select from current general education list

#### Global Perspectives (G):

ECON 201	Principles of Microeconomics *	3
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or ECON 202	Principles of Macroeconomics	
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Total Credits 40

## Major Requirements

General Education Requirements 40

### Pre-College of Business Requirements

ACCT 200	Elements of Accounting I *	3
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ACCT 201	Elements of Accounting II *	3
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MATH 103	College Algebra (This is waived for students who place into Math 105 or higher.) *	3
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PSYC 111	Introduction to Psychology *	3
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STAT 331	Regression Analysis *	2
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### Pre-MIS Requirements

CSCI 227	Computing Fundamentals I (Fall) *	3
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CSCI 228	Computing Fundamentals II (Spring) *	3
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MATH 144	Mathematics for Business *	4
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SOC 110	Introduction to Sociology *	3
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### Management Information Systems Major Requirements \*\*

FIN 320	Principles of Finance <sup>1</sup>	3
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MGMT 320	Foundations of Management <sup>1</sup>	3
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MGMT 360	Operations Management	3
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MRKT 320	Foundations of Marketing <sup>1</sup>	3
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BUSN 430	Legal and Social Environment of Business <sup>1</sup>	3
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BUSN 489	Strategic Management (Capstone Course) <sup>1</sup>	4
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MIS 320	Management Information Systems <sup>1</sup>	3
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MIS 375	Database Design for Business Application (S)	3
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MIS 376	Data and Telecommunications Administration (F)	3
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MIS 470	Information Systems (F)	3
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CSCI 312	Survey of Programming Languages (F)	3
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CSCI 315	System Analysis and Design (F)	3
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CSCI 316	System Testing and Maintenance (S)	3
CSCI 489	Social Implications of Computers (F)	3
<b>Management Information Systems Practicum</b>		
Select one of the following:		3
MIS 397	Fe/Coop Ed/Internship	
UNIV 492	Study Abroad	
MIS 413	MIS Service Internship	
IME 456	Program and Project Management	
BUSN 486		
CSCI 445	Software Projects Capstone	
AGEC 499	Special Topics	
<b>Elective Requirements for MIS Major. Complete 3 credits in each of the four areas below: **</b>		
1) Programming Language Course (Select one of the following):		3
CSCI 125	Beginning COBOL	
ECE 173	Introduction to Computing	
Or complete an intermediate or advanced CSCI course that was not the teaching language of CSCI 227/CSCI 228		
2) Technology Elective I: Select one course from the following:		3
CSCI 125	Beginning COBOL	
CSCI 159	Computer Science Problem Solving	
CSCI 172	Intermediate Visual BASIC	
CSCI 222	Discrete Mathematics	
CSCI 275	Digital Systems I	
CSCI 277	Introduction to UNIX	
or MIS 277	Introduction to UNIX	
CSCI 299	Special Topics	
or MIS 299	Special Topics	
CSCI 335		
CSCI 336	Theoretical Computer Science II	
ECE 173	Introduction to Computing	
ECE 275	Digital Design	
Any 300-400 level CSCI or MIS course not used to satisfy another MIS major requirement		
3) Technology Elective II:		3
Any 300-400 level CSCI or MIS course not used to satisfy another MIS major requirement		
4) Business Elective:		3
Any 300-400 level CoB course not used to satisfy other requirements, or CSCI 473, or ECON 324. (Excludes internships, study abroad, LEAD courses & MIS 371)		
<b>Degree Electives: Potential of 5 credits to reach 130.</b>		5
Total Credits		130

\* Pre-college and pre-management information systems major courses. A grade of 'C' or better for pre-college and pre-management information systems major courses is required for admission into the Management Information Systems major.

\*\* Students must earn a 'C' or better, and have a minimum 2.5 cumulative GPA, in ALL courses included in the professional program (i.e., all required courses, elective requirements, and additional 300-400 level CoB electives or breadth electives).

<sup>1</sup> Denotes Common Body of Knowledge (CBK) course.

## Degree Requirements and Notes

- Business courses from programs that do not hold AACSB International accreditation cannot be used for major or minor requirements in the College of Business (CoB); such courses may be eligible for use as free electives.
- The CoB accepts a maximum of nine credits of non-NDSU 300-400 level business courses from AACSB programs with approval of the department.
- Admission into the MIS Major: Students must earn a 'C' or better in the pre-college and pre-MIS courses that are indicated with an asterisk (\*), achieve junior standing (60 credits), and earn a 2.50 institutional cumulative grade point average. Students must submit an online application to the CoB.
- Admission to the MIS major is required to enroll in the advanced 300 or 400 level courses in the CoB.
- A grade of 'C' or better is required in transfer courses accepted for ACCT 200 Elements of Accounting I and ACCT 201 Elements of Accounting II and all 300-400 level accounting, business administration, finance, management, management information systems, and marketing courses.
- A letter grade must be earned in any course that fulfills a major requirement.
- Requirements for graduation are those in existence at the time of admission to the MIS major.
- A 2.50 cumulative grade point average is required to enroll in 300-400 level CoB courses.
- Students must earn a 2.50 institutional GPA to graduate.
- Of the credits completed in residence at least 30 credits must be in 300-400 level CoB courses.
- Students must be accepted to the MIS major prior to the completion of the last 30 credits in 300 and 400 level CoB courses.
- A Business Administration minor is NOT offered with this major.
- For multiple majors within the CoB, at least 15 unique credits of 300-400 level CoB courses must exist between the majors.
- Students should refer to [www.ndsu.edu/business](http://www.ndsu.edu/business) for current and complete listing of the major requirements.

## Minor Requirements

### Management Information Systems Minor

#### Minor Requirements

##### Required Credits: 21

Students should refer to [www.ndsu.edu/business](http://www.ndsu.edu/business) for information on declaring the minor with the CoB.

##### Requirements

MGMT 320	Foundations of Management	3
MIS 375	Database Design for Business Application *	3
or CSCI 366	Database Systems	
MIS 376	Data and Telecommunications Administration *	3
or CSCI 459	Foundations of Computer Networks	
CSCI 227	Computing Fundamentals I **	3-4
or CSCI 160	Computer Science I	
Select one of the following:		3
ACCT 420	Accounting Information Systems	

MIS 470	Information Systems	
Or an MIS advisor-approved CoB course that is MIS related		
Select one of the following:		3
CSCI 300-400 level elective		
Or an MIS advisor-approved 300-400 level computer science course from below:		
CSCI 122	Visual BASIC	
CSCI 161	Computer Science II	
CSCI 172	Intermediate Visual BASIC	
CSCI 228	Computing Fundamentals II	
CSCI 315	System Analysis and Design	3
Total Credits		21-22

- \* Students who take CSCI 366 Database Systems & CSCI 459 Foundations of Computer Networks, must select an additional MIS advisor-approved CoB course.
- \*\* It is strongly recommended that students who take CSCI 227 Computing Fundamentals I select CSCI 228 Computing Fundamentals II as their elective in preparation for CSCI 315 System Analysis and Design.

### Minor Requirements and Notes

- A minimum of 9 credits must be completed in the CoB.
- Approval forms must be submitted after completed CSCI 227 Computing Fundamentals I or CSCI 160 Computer Science I.
- To be accepted into the minor program, students must have a 2.50 institutional cumulative GPA and at least junior standing (60 credits). To complete a minor, students must earn at least a 2.50 GPA that is based on the courses used to satisfy the minor requirements. Courses may not be taken pass/fail.
- If the cumulative GPA falls below the 2.50 after acceptance into the program, the student will not be allowed to register for the CoB courses until the cumulative GPA returns to 2.50 or above.
- Students are subject to the minor requirements in effect during the year in which the minor was approved.
- Minors must satisfy all course prerequisites.
- Approval for a minor does not guarantee enrollment in specific courses.
- Graduation with a minor in Management Information Systems requires a grade of 'C' or better in all courses required for the minor.