

# Management Information Systems Major

## Major Requirements

Degree Type: B.S.  
Minimum Credits Required: 120

### University Degree Requirements

For complete details on these and other university degree requirements, refer to the Degree and Graduation Requirements (<http://catalog.ndsu.edu/academic-policies/undergraduate-policies/degree-and-graduation/>) section in the University Catalog.

1. Minimum of 120 semester credits (some programs may exceed this minimum).
2. Complete the University General Education requirements.
3. Minimum institutional GPA of 2.00 based on work taken at NDSU.
4. Minimum of 30 credits in resident at NDSU.
5. Minimum of 36 upper level credits (courses numbered 300 or higher).
6. Students with transfer credit must meet the NDSU 30 credits in residence (#4). Of these 30 credits in residence, a minimum of 15 credits must be in courses numbered 300 or above, and 15 credits must be in the student's declared major curricula.

### University General Education Requirements

A list of university approved general education courses along with the administrative policies governing the requirement and the categories is available here (<http://catalog.ndsu.edu/academic-policies/undergraduate-policies/general-education/>).

Code	Title	Credits
<b>Category C: Communication</b>		<b>12</b>
<b>Category R: Quantitative Reasoning</b>		<b>3</b>
<b>Category S: Science and Technology</b>		<b>10</b>
<b>Category A: Humanities and Fine Arts</b>		<b>6</b>
<b>Category B: Social and Behavioral Sciences</b>		<b>6</b>
<b>Category W: Wellness</b>		<b>2</b>
<b>Category D: Cultural Diversity</b>		
<b>Category G: Global Perspectives</b>		
<b>Category L: Digital Literacy</b>		
<b>Total Credits</b>		<b>39</b>

### Pre-Major Requirements

#### Major Requirements

Code	Title	Credits
<b>Pre-Major Requirements</b>		
COMM 110	Fundamentals of Public Speaking	3
ENGL 120	College Composition II	3
ECON 201 or ECON 202	Principles of Microeconomics <sup>2</sup> Principles of Macroeconomics	3
MATH 144	Mathematics for Business	4
PSYC 111 or SOC 110	Introduction to Psychology Introduction to Sociology	3
<b>Major Core Requirements</b>		
ACCT 200	Elements of Accounting I	3
ACCT 201	Elements of Accounting II	3
ECON 201 or ECON 202	Principles of Microeconomics <sup>2</sup> Principles of Macroeconomics	3
TL 116	Business Software Applications	3
PHIL 216	Business Ethics	3
STAT 330	Introductory Statistics	3

STAT 331	Regression Analysis	2
ENGL 320	Business and Professional Writing	3
Admission to the major program is required prior to taking the following courses:		
FIN 320	Principles of Finance <sup>1</sup>	3
MGMT 320	Foundations of Management <sup>1</sup>	3
MRKT 320	Foundations of Marketing <sup>1</sup>	3
BUSN 430	Legal and Social Environment of Business <sup>1</sup>	3
BUSN 489	Strategic Management <sup>1</sup>	3
MIS 320	Management Information Systems	3
MIS 315	System Analysis and Design	3
MIS 450	Enterprise Systems	3
MIS 375	Database Design for Business Application	3
MIS 376	Data and Telecommunications Administration	3
MIS 470	Information Systems	3
<b>Track: Select one track to complete the major: Information Technology or Business Analytics</b>		
Students must select either the Information Technology Track or the Business Analytics Track to complete the MIS major requirements.		24-26
<b>Total Credits</b>		<b>96-98</b>

### Information Technology Track

Code	Title	Credits
CSCI 312	Survey of Programming Languages	3
Programming Electives - Select two from the following (recommended CSCI 160 or CSCI 227; CSCI 161 or CSCI 228)		6-8
CSCI 160	Computer Science I	
CSCI 122	Visual BASIC	
CSCI 161	Computer Science II	
CSCI 172	Intermediate Visual BASIC	
CSCI 213	Modern Software Development	
CSCI 227	Computing Fundamentals in Python I	
CSCI 228	Computing Fundamentals in Python II	
CSCI 371	Web Scripting Languages	
ECE 173	Introduction to Computing	
STAT 471	Introduction to the R Language	
Technology Electives - Select two courses; one must be 300-400 level		6
ACCT 420	Accounting Information Systems	
CSCI 213	Modern Software Development (If not used above in programming electives.)	
CSCI 345	Topics on Personal Computers	
CSCI 371	Web Scripting Languages (If not used above in programming electives.)	
CSCI 372	Comparative Programming Languages	
CSCI 428	Artificial Intelligence, Ethics, and the Environment	
CSCI 473	Foundations of the Digital Enterprise	
CSCI 489	Social Implications of Computers	
ECON 411	Computational Economics	
FIN 330	Data Analytics in Finance	
IME 456	Program and Project Management	
MRKT 465	Digital Marketing	
SCM 330	Supply Chain Analysis and Analytics	
STAT 469	Introduction to Biostatistics	
STAT 471	Introduction to the R Language (If not used above in programming electives.)	
Business Elective: Any 300-400 level CoB course not used to satisfy other major requirements, CSCI 473, or ECON 324. (Excludes internships, study abroad, LEAD courses & MIS 371; includes courses cross-listed with CoB courses).		6
Internship in IT - Students must complete one of the following options:		3
MIS 397	Fe/Coop Ed/Internship	

MIS 413	MIS Service Internship
MGMT 470	Entrepreneurship/Small Business Management
AGEC 371	Export Management
GLBL 492	Global Practicum: Study Abroad

**Total Credits** **24-26**

### Business Analytics Track

Code	Title	Credits
BUSN 380	Business Analytics: Business Problem Solving with Spreadsheets	3
MIS 340	Applied Business Intelligence	3
MIS 479	Business Data Mining and Predictive Analytics	3
Programming Elective - Select one course from the following:		3-4
CSCI 122	Visual BASIC	
CSCI 160	Computer Science I	
CSCI 172	Intermediate Visual BASIC	
CSCI 213	Modern Software Development	
CSCI 227	Computing Fundamentals in Python I	
CSCI 371	Web Scripting Languages	
ECE 173	Introduction to Computing	
STAT 471	Introduction to the R Language	
Business Elective: Any 300-400 level CoB course not used to satisfy other major requirements, CSCI 473, or ECON 324. (Excludes internships, study abroad, LEAD courses & MIS 371; includes courses cross-listed with CoB courses).		9
Internship in Business Analytics - Students must complete one of the following options:		3
MIS 397	Fe/Coop Ed/Internship	
MIS 413	MIS Service Internship	
MGMT 470	Entrepreneurship/Small Business Management	
AGEC 371	Export Management	
GLBL 492	Global Practicum: Study Abroad	

**Total Credits** **24-25**

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

<sup>2</sup> Students will complete one economics course for the pre-major and the other economics course once admitted to the major.

### Degree Requirements and Notes

- All courses for the pre-major and major require a grade of C or better.
- Students follow the published curricula for the Management Information Systems program of study from the semester/year of entrance in the College of Business to graduation provided enrollment at NDSU has not been discontinued for more than one year. Students who change their major are subject to meeting the curricular requirements in effect at the time the new major is declared.
- The CoB accepts a maximum of up to (but not including) 50% of upper-division business courses\* required for degree completion, with a minimum grade of C\*\*. All transfer courses are subject to approval by the course discipline chair or designated representative.
  - \* Defined as courses with the following prefixes: ACCT, BUSN, ENTR, FIN, MGMT, MIS, MRKT, SCM
  - \*\* Credits that do not qualify for degree completion will still be accepted as general credits towards graduation, within the restrictions defined by university policy.
- Students must earn a 2.50 institutional GPA to graduate.
- Admission to the MIS major is required to enroll in the advanced 300 or 400 level courses in the CoB.
- A letter grade must be earned in any course that fulfills a major requirement (with the exception of some practicum options).
- 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.
- Students are not eligible for a Business Administration minor 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.
- Prerequisite for Management Information Systems Practicum: MIS 320 with a grade of C or better.