Management Information Systems

Department Information

- **Department Web Site:**
  www.ndsu.edu/business/ (http://www.ndsu.edu/business/)
- **Credential Offered:**
  B.S.; Minor
- **Sample Program Guide:**
  catalog.ndsu.edu/programs-study/undergraduate/management-information-systems/#planofstudytext (http://catalog.ndsu.edu/programs-study/undergraduate/management-information-systems/#planofstudytext)

Major Requirements

Major: Management Information Systems

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

University Degree Requirements

1. Satisfactory completion of all requirements of the curriculum in which one is enrolled.
2. Earn a minimum total of 120 credits in approved coursework. Some academic programs exceed this minimum.
3. Satisfactory completion of the general education requirements as specified by the university.
4. A minimum institutional GPA of 2.00 based on work taken at NDSU.
5. At least 30 credits must be NDSU resident credits. Resident credits include credits registered and paid for at NDSU.
6. At least 36 credits presented for graduation must be in courses numbered 300 or higher.
7. Students presenting transfer credit must meet the NDSU residence credits and the minimum upper level credit. Of the 30 credits earned in residence, a minimum of 15 semester credits must be in courses numbered 300 or above, and 15 semester credits must be in the student's curricula for their declared major.

For complete information, please refer to the Degree and Graduation Requirements (http://catalog.ndsu.edu/past-bulletin-archive/2023-24/academic-policies/undergraduate-policies/degree-and-graduation/) section of this Bulletin.

University General Education Requirements

Code	Title	Credits
Communication (C)		**12**
ENGL 110	College Composition I	
ENGL 120	College Composition II	
COMM 110	Fundamentals of Public Speaking	
Upper Division Writing [†]		
Quantitative Reasoning (R) [†]		**3**
Science and Technology (S) [†]		**10**
Humanities and Fine Arts (A) [†]		**6**
Social and Behavioral Sciences (B) [†]		**6**
Wellness (W) [†]		**2**
Cultural Diversity (D) [*†]		
Global Perspectives (G) [*†]		
Total Credits		**39**

[*]
 May be satisfied by completing courses in another General Education category.

[†]
 General education courses may be used to satisfy requirements for both general education and the major, minor, and program emphases, where applicable. Students should carefully review major requirements to determine if specific courses can also satisfy these general education categories.

- A list of university approved general education courses and administrative policies are available here (http://catalog.ndsu.edu/past-bulletin-archive/2023-24/academic-policies/undergraduate-policies/general-education/#genedcoursestext).

Pre-Major Requirements

Code	Title	Credits
COMM 110	Fundamentals of Public Speaking	3
ENGL 120	College Composition II	3
ECON 201	Principles of Microeconomics	3
or ECON 202	Principles of Macroeconomics	
MATH 144	Mathematics for Business	4
PSYC 111	Introduction to Psychology	3
or SOC 110	Introduction to Sociology	
Total Credits		**16**

Major Requirements

Code	Title	Credits
Core Requirements		
ACCT 200	Elements of Accounting I	3
ACCT 201	Elements of Accounting II	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 [1]	3
MGMT 320	Foundations of Management [1]	3
MRKT 320	Foundations of Marketing [1]	3
BUSN 430	Legal and Social Environment of Business [1]	3
BUSN 489	Strategic Management [1]	3
SCM 460	Production & Operations Management	3
MIS 320	Management Information Systems	3
MIS 315	System Analysis and Design	3
MIS 350	Enterprise Systems	3
MIS 375	Database Design for Business Application	3
MIS 376	Data and Telecommunications Administration	3
MIS 470	Information Systems	3
Track: Select one of two tracks: Information Technology or Business Analytics		
Students must select either the Information Technology Track or the Business Analytics Track to complete the MIS major requirements.		21-23
Total Credits		**77-79**

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 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	
Techology 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 - Select a 300-400 level course from MIS, ACCT, FIN, MGMT, SCM, TL, or BUSN prefix. Could also take CSCI 473 or ECON 324 or any other prefix course and number cross-listed with a business prefix course listed here. This elective excludes internships, study abroad, LEAD prefix courses & MIS 371.		3
Internship in IT (MIS 397)		3
Total Credits		**21-23**

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 from the following:		3-4
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 - Select 300-400 level courses from MIS, ACCT, FIN, MGMT, SCM, TL, or BUSN prefix. Could also take CSCI 473 or ECON 324 or any other prefix course and number cross-listed with a business prefix course listed here. This elective excludes internships, study abroad, LEAD prefix courses & MIS 371.		6
Internship in Analytics (MIS 397)		3
Total Credits		**21-22**

[1]

Denotes Common Body of Knowledge (CBK) course.

Degree Requirements and Notes

- 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 (300-level and 400-level) 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.

Minor Requirements

Minor: Management Information Systems

Required Credits: 21

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

Code	Title	Credits
Requirements		
MGMT 320	Foundations of Management	3
MIS 315	System Analysis and Design	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 in Python 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
An MIS adviser approved 300-400 level CSCI course		
Or one of the following:		
CSCI 122	Visual BASIC	
CSCI 161	Computer Science II	
CSCI 172	Intermediate Visual BASIC	
CSCI 228	Computing Fundamentals in Python II [**]	
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 select CSCI 228 as their elective in preparation for MIS 315.

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 in Python I or CSCI 160 Computer Science I.
- To be accepted into the minor program, students must have a 2.50 institutional cumulative GPA. 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.