



# College of Information Science and Technology

## Bachelor of Science in Management Information Systems

## Associate to Bachelor's (A→B) Articulation Agreement

For more information contact:

Office of Student Services  
**Metropolitan Community College**  
**Elkhorn Valley Campus**  
 (402) 289-1205  
**Fort Omaha Campus**  
 (402) 457-2705  
**South Omaha Campus**  
 (402) 738-4505  
**Sarpy Center**  
 (402) 537-3800  
**Fremont Area Center**  
 (402) 721-2507  
**Applied Technology Center**  
 (402) 763-5800  
[www.mccneb.edu](http://www.mccneb.edu)

**University of Nebraska at Omaha**  
 College of Information  
 Science and Technology  
 Office of Academic Advising  
 (402) 554-3819  
[www.ist.unomaha.edu](http://www.ist.unomaha.edu)

2018

### Computer Technology Transfer - Management Information Systems (CTMAS) Associate in Applied Science

**General Education Requirements ..... 47 +**

English & Writing / Communication				Social Sciences – Select one course from below			
ENGL	1010	English Composition I	4.5	GEOG	1010	Fundamentals of Geography (G)	4.5
ENGL	1020	English Composition II	4.5	GEOG	1050	Intro to Human Geography (G)	4.5
SPCH	1110	Public Speaking	4.5	SOCI	2060	Multicultural Issues (US)	4.5
Mathematics				SOCI	2160	Marriage and the Family (US)	4.5
MATH	1310	Intermediate Algebra *	4.5	Humanities & Fine Arts – Select one course from below			
MATH	1420	College Algebra *	5	ENGL	2530	Ethnic Literature (US)	4.5
Other				HIST	1110	World Civilization - Prehistory to 1500 (G)	4.5
HMRL	1010	Human Relations Skills **	4.5	HIST	1120	World Civilization - 1500 to Present (G)	4.5
INFO	1001	Information Systems & Literacy ^	4.5	HIST	1050	Introduction to Black History (US)	4.5
Natural & Physical Sciences Select 1 course from below				PHIL	2200	Intro to Comparative Religion (G)	4.5
PHYS	110ABC	Principles of Physics	7.5	ARTS	1000	Intro to the Visual Arts (G)	4.5
BIOS	1010	Introduction to Biology	6	HUMS	1000	Humanities through the Arts (G)	4.5
CHEM	1010	College Chemistry	6	HUMS	1100	Classical Humanities (G)	4.5
GEOG	1150	Intro to Phys Geo-Weather & Climate	6	HUMS	1120	Humanities I: Med.-Renaissance (G)	4.5
GEOG	1160	Intro to Phys Geo-Landforms	6	HUMS	1130	Humanities II: Modern World (G)	4.5
GEOG	1210	Intro to Physical Geology	6	HUMS	1150	Multi-Cultural Humanities (G)	4.5
SCIE	1300&1310	Astronomy & Lab	6	Diversity ~ (US) – meets UNO Diversity - US requirement			
				Diversity ~ (G) - meets UNO Diversity - Global requirement			

**Major Requirements for Computer Technology Transfer – Management Information Systems ..... 53**

MCC Associate Degree Required Courses				UNO Equivalents	
ACCT	1100	Accounting I	4	ACCT 1100, 1110 & 1120 = ACCT 2010 & ACCT 2020	
ACCT	1110	Accounting II	4		
ACCT	1120	Accounting III	4		
ECON	1000	Macroeconomics	4.5	ECON 2220 Principles of Economics (Macro)	
ECON	1100	Microeconomics	4.5	ECON 2200 Principles of Economics (Micro)	
INFO	1003	Introduction to Computer Programming	5	Prerequisite to INFO 1521	
INFO	1311	Web Page Creation	4.5	CIST 1300 Intro. to Web Development	
INFO	1521	Java Programming I	4.5	CIST 1400 Intro to Computer Science I	
INFO	1531	Java Programming II	4.5	CSCI 2980 Special Topics in Computer Science	
INFO	2530	Data Structures Using JAVA	4.5	CSCI 1620 Computer Science II	
INFO	1620	Introduction to Database Design	4.5	ISQA 3310 Managing the Database Environment (INFO 1620 + INFO 2630)	
INFO	2630	Structured Query Language (SQL) *	4.5	ISQA 3310 Managing the Database Environment (INFO 1620 + INFO 2630)	

**Total Required Hours ..... 100 +**

\* MATH 1310 is a prerequisite for MATH 1420. Students who place directly into College Algebra without taking Intermediate Algebra should choose another Social Science or Humanities & Fine Arts general education course.

\*\* Course meets a UNO Social Sciences general education requirement. Transfers as equivalent to UNO's CMST 2010 Interpersonal Communication.

^ Course not required at UNO. Transfers as elective.

MCC transfer students will need to take MATH 1930 (Calculus for the Managerial, Life and Social Sciences) at UNO. UNO requires the College Algebra (MAT 1420) prerequisite be completed within two years of enrollment in MATH 1930, or students must take the UNO Math Placement Exam.

A student who transfers from Metropolitan Community College to the University of Nebraska at Omaha (UNO) must review and declare the Management Information Systems program option in the UNO catalog. Refer to the UNO undergraduate catalog in effect at the time you started at MCC (not to exceed four catalog years) to review program options beginning the junior year of academic standing.

The two institutions agree that if a student has been awarded the Associate in Science Degree in Computer Technology Transfer from Metropolitan Community College then s/he:

- Will be permitted to enter with junior class standing in the College of Information Science and Technology and to transfer the maximum of 64 semester hours earned in the Associate in Science Degree in Computer Technology Transfer given the following condition: Students must have a minimum overall grade point average of 2.5 or higher as well as a "C" or better in each course.
- Will be permitted to complete all additional University of Nebraska at Omaha courses set forth through program options in the undergraduate catalog in effect at the time of Metropolitan Community College matriculation, not to exceed four catalog years. However, changes in program will be strongly recommended in order to better prepare students. See a UNO advisor regarding catalog changes.
- Will be awarded the Bachelor of Science in Management Information Systems degree from the College of Information Science and Technology, UNO upon the completion of all degree requirements.



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The Bachelor of Science in Management Information Systems (BIS) degree program provides students with the educational background to effectively pursue a career in applying information technologies such as computers, telecommunications, image processing, etc. in business and government. The courses in the program provide students with the knowledge and ability to function successfully in a rapidly changing organizational and technological environment. The student learns how to identify and analyze information problems, design and implement technology solutions, and manage and maintain the resulting information systems within an organization. Students graduate with an educational background appropriate for pursuing career opportunities in business data processing, management information systems, information centers, systems analysis, systems design, decision support systems, knowledge management, project management and other related areas. Courses in this degree program are listed in the UNO catalog as Information Systems and Quantitative Analysis (ISQA).

#### Optional Concentrations available for MIS majors at UNO:

**Global IT Leadership and Management:** The education and training of globally savvy professionals in science, engineering and information technology (IT) is important for the long-term viability of many American firms today. Future business leaders must 1) appreciate the challenges and opportunities of IT management in the context of 21st century global organizations; 2) understand the international aspects of IT leadership & management as a basis for integrating a global and multi-cultural view; and 3) learn about the various roles, responsibilities, skills, and concepts essential to being a successful IT manager in the context of a dynamic technological environment, workforce diversity, global economy, and concern for ethics and social responsibility in the development & deployment of systems. The College of Information Science & Technology (CIST) and UNO's International Studies & Programs (ISP) have joined to offer an interdisciplinary "Global IT Leadership & Management" (GITLM) specialization both in the International Studies (INST) undergraduate program and the CIST undergraduate program in Management Information Systems. The GITLM specialization will foster the integration of technology and internationalization through an interdisciplinary program offered through intercampus collaboration with UNO's sister-universities in Norway, India, Germany, Austria, and China. GITLM will bring a global perspective to the Information Technology (IT) curriculum and add a technology component to the international studies (INST) major.

**I-Business Application Development & Management Concentration:** The i-Business Application Development & Management Concentration will provide students with the technical, organizational and managerial background to plan, develop and manage Internet-based applications. The concentration includes courses that provide students with an understanding of the issues, concepts and technologies involved in establishing and implementing a corporate strategy for electronic business. These courses address issues of organizational strategy, process reengineering and supporting information systems architecture. Students will also learn and apply technical skills needed to develop Internet-based distributed applications.

**Information Assurance Concentration:** The Information Assurance concentration supplements and extends the Management Information Systems (MIS) curriculum by focusing on the foundational principles, work examples, theory and skills necessary to analyze, design and construct secure information systems. These courses address the fundamental technologies, policy, assurance and ethics involved in the protection of information systems. Hands-on experience is gained through numerous laboratory exercises associated with each course. The concentration is designed to accommodate students with either a computer science (CS) or MIS background.

**Internet Technologies Concentration:** The Internet Technology (IT) concentration supplements the Management Information Systems (MIS) curriculum by focusing on the expertise needed to implement solutions that involve contemporary Internet technologies and software applications. The concentration is designed to accommodate the differing backgrounds of MIS and CS majors. The requirements of either the MIS or CS majors provide the background necessary to pursue the IT concentration. The concentration makes extensive use of existing MIS and CS courses, building on what has been accomplished in these programs. The IT concentration provides extensive hands-on, project-based experience for the students.

### **IT Audit and Control Concentration**

The IT Audit and Control Concentration is available only to MIS majors and provides student with the technical, organizational, accounting/auditing, and managerial background to plan and conduct IT audit and control activities. The concentration will cover the following conceptual area: business risks and the management of business risk, IT risk as a component of business risk, the need to manage IT risks, basic type of controls required in a business system in order to control IT risks, controls associated with top management, system development, quality assurance, boundary controls, and communications. Issues associated with new system control risks created by the use of the internet for business applications and electronic business will also be covered in one or more courses. Students will learn and apply and integrate technical, managerial and conceptual skills needed to plan and conduct IT audits and establish appropriate controls.

For copies of UNO's Matriculation Form visit [http://www.ist.unomaha.edu/forms/mis/mat\\_form.pdf](http://www.ist.unomaha.edu/forms/mis/mat_form.pdf)

### **Certificate in Data Management**

This certificate consists of 15 undergraduate credits.

Data Management (DM) is the practice of managing data-related issues for organizations. Data management practitioners seek to optimize the design, storage, and use of organizational data.

The goal of the certificate is to provide non-traditional and traditional students an opportunity to take a focused set of undergraduate courses and earn a certificate of completion. Prospective students in the workplace who have only an Associate Degree would benefit from advanced certifications in targeted areas. Such certifications fit with organizational professional development requirements and could be used, at the discretion of the organization, as professional development units (PDUs).

The data management certificate is intended for students who do not have an undergraduate degree. However, should a student decide to pursue a degree after starting or completing the certificate program, all credits taken for a certificate can be applied towards the completion of an undergraduate degree in the college.

### **Certificate in Systems Development**

This certificate consists of 15 credit hours. Systems Development practitioners seek to optimize the design, implementation, and use of information systems for organizational purposes.

The goal of the certificate is to provide non-traditional and traditional students an opportunity to take a focused set of undergraduate courses and earn a certificate of completion. Prospective students in the workplace who have only an Associate Degree would benefit from advanced certifications in targeted areas. Such certifications fit with organizational professional development requirements and could be used, at the discretion of the organization, as professional development units (PDUs).

The systems development certificate is intended for students who do not have an undergraduate degree. However, should a student decide to pursue a degree after starting or completing the certificate program, all credits taken for a certificate can be applied towards the completion of an undergraduate degree in the college of Information Science & Technology.

### **Certificate in Information Technology Administration**

This certificate consists of 14 undergraduate credits.

The undergraduate certificate in Information Technology (IT) Administration is designed for students who are interested in managing the complex technical infrastructure of today's organizations and is offered in partnership with University of Agder in Norway (UiA), a sister university to UNO.

The goal of the certificate is to provide non-traditional and traditional students an opportunity to take a focused set of undergraduate courses and earn a certificate of completion. Prospective students in the workplace who have only an Associate's Degree would benefit from advanced certifications in targeted areas. Certificates such as this one fit with organizational professional development requirements and could be used, at the discretion of the organization, as professional development units (PDUs).

The IT Administration certificate is intended for students who do not have an undergraduate degree. However, should a student decide to pursue a degree after starting or completing the certificate program, all credits taken for a certificate can be applied towards the completion of an undergraduate degree in the college.

The certificate consists of 14 credit hours of hands-on courses, covering such areas as systems administration, network administration, database administration, security administration, and distributed systems. All courses will be offered online. Students will take courses taught by both UNO and UiA instructors and will have the opportunity to work with students residing in a country other than their own.

### **Integrated Undergraduate/Graduate Track in Management Information Systems at UNO:**

The department of Information Systems and Quantitative Analysis offers an Integrated Undergraduate/Graduate Track which allows dedicated students to complete the BS and in MIS undergraduate degree and the MS in MIS graduate degree in five years. The primary purpose of UNO's College of IS&T's integrated undergraduate/graduate (IUG) track in MIS is to provide outstanding students in the College of IS&T an option to complete the BS undergraduate degree in MIS and the MS graduate degree in MIS in five years (152 total hours). The IUG program is designed for dedicated students who are motivated and willing to take on early the challenges relating to graduate education. As such, the program involves both intensive study and preparation in the MIS field. Interested students are encouraged to meet with their adviser to find more information about this track.