



SCHOOL OF ENGINEERING AND COMPUTING

# BACHELOR OF SCIENCE IN INFORMATION SYSTEMS

## Manage the Technology Behind the Business

The Bachelor of Science in Information Systems (BSIS) program links business and technology across fields as diverse as healthcare and criminal justice. The program includes coursework in IT mainstays such as data communications, systems analysis, system development, database administration, project management, computer forensics, health information management, and quality/information assurance.

A degree in Information Systems (IS) from National University will serve you in the corporate world and beyond. As an IS professional you'll be responsible for planning, coordinating, and directing computer-related activities for your organization. You'll also help determine the information technology (IT) goals of the organization and take responsibility for implementing computer systems to meet those goals.

### Program highlights:

- Entire program can be completed online
- Apply analytical and critical-thinking skills and information-systems concepts to solve organizational problems
- Evaluate and implement organizational planning, design, and integration of information systems solutions in a competitive environment
- Plan and design organizational communications infrastructure and networking topology
- Improve strategic information management procedures and processes
- Identify innovative and efficient solutions to solve technical organizational problems

**LEARN  
MORE  
TODAY**

Online and On-campus Programs  
Monthly Starts and Accelerated Classes  
WSCUC Accredited



**NATIONAL  
UNIVERSITY**

## MAJOR IN INFORMATION SYSTEMS

Academic Program Director: Lu Zhang; (858) 309-3429; lzhang@nu.edu

The Bachelor of Science in Information Systems (BSIS) program links business and technology, and there is great demand in the corporate world for people who can integrate all elements of the enterprise into a comprehensive network of responsive, proactive information delivery systems. Information systems have become increasingly important in fields such as healthcare and criminal justice. The BSIS program includes: data communications, systems analysis, system development, database management system, project management, enterprise architecture, IT infrastructure, and IS strategy, management and acquisition.

A transition program is available for students in the BSIS to Master of Science in Management Information Systems. Students must meet certain requirements as detailed.

### BSIS/ Master of Science in Management Information Systems Transition Program

Students can select CIS 601 and any one of the following two courses: CSC 675 and CIS 602. The number of courses required to earn an MSMIS degree for Transition program students is reduced from 12 to 10 courses, depending on courses selected and grades earned. Students must complete graduate-level coursework taken as part of the BSIS degree with a grade of B or better. This coursework, which counts as electives, will not transfer as graduate-level credit to National University or any other institution as it is part of an undergraduate degree program. Grades earned in graduate-level courses will be calculated as part of the student's undergraduate grade point average. Students must be within completing their last six courses in their undergraduate program and have a cumulative GPA of at least a 3.00 to be eligible. Students must apply for and begin the MSMIS program within six months after completing their final BSIS course. Students must complete their MSMIS program within four years with no break exceeding 12 months.

### Program Learning Outcomes

Upon successful completion of this program, students will be able to:

- Apply analytical and critical thinking skills, and information systems concepts for solving organizational problems.
- Discuss the potential global impact of specific information systems solutions.
- Evaluate and implement organizational planning, design, and integration of information systems solutions in competitive environment.
- Plan and design organizational communications infrastructure and networking topology.
- Improve strategic information management procedures and processes.
- Identify innovative and efficient solutions to solve organizational problems.
- Demonstrate written and oral communication skills in a collaborative environment.

### Degree Requirements

To receive a Bachelor of Science in Information Systems, students must complete at least 180 quarter units, 45 of which must be completed in residence at National University, 76.5 of which must be completed at the upper-division level, and a minimum 70.5 units of the University General Education requirements. In the absence of transfer credit, additional general electives may be necessary to satisfy total units for the degree. Students should refer to the section on undergraduate admission procedures for specific information on admission and evaluation. All students receiving an undergraduate degree in Nevada are required by state law to complete a course in Nevada Constitution.

### Requirements for the Major

(17 courses; 76.5 quarter units)

#### Core Requirements

(10 courses; 45 quarter units)

CIS 301	Mgmt. Information Systems
CIS 310	Technology Project Management
CIS 320	Systems Analysis & Integration
CIS 350	Database Management Systems
CIS 421	Enterprise Architecture <i>Prerequisite: CIS 301</i>
CIS 422	IT Infrastructure <i>Prerequisite: CIS 421</i>
CIS 423	IS Strategy, Mgt. & Acquisition <i>Prerequisite: CIS 422</i>
CSC 350	Computer Ethics

CIS 420A Information Systems Project I  
*Prerequisite: CIS 310 and 80 percent of courses in the major, except CIS 420B*

CIS 420B Information Systems Project II  
*Prerequisite: CIS 420A*

### UPPER DIVISION ELECTIVES

(3 courses; 13.5 quarter units)

Select **three (3)** upper-division courses from the following list:

CIS 430	Web/EB Design & Development
CIS 460	Human Factor /Ergonomic Design
ITM 420	Local Area Network Management
ITM 430	Wide Area Network Management <i>Prerequisite: ITM 420</i>
ITM 470	Information Security Management
ITM 475	Information Security Technology <i>Prerequisite: ITM 470</i>

Students must complete core courses (except CIS 420A and CIS 420B) and upper division electives before taking four courses in one of the two concentrations: Information Management or Business Management.

### Concentration in Business Management

Business Management Concentration is 4 courses from Business (4 courses from SOBM will allow students to obtain the needed skills listed below).

- General models of business
- Business models
- Business process design and management
- Organizational theory
- Business strategy
- Evaluation of business performance
- Analysis of organizational performance.
- Analysis of individual and team performance
- Business analytics
- Business intelligence

### Degree Requirements

Students must complete core courses (except CIS 420A and CIS 420B) and upper division electives before taking four courses in this concentration.

### Requirements for the Concentration

(4 courses; 18 quarter units)

MGT 309C	Prin. of Mgmt. & Organizations
BIM 400	Info Mgmt. in Organizations
MGT 483	E-Business

### AND

Select **one (1)** upper-division undergraduate course from the School of Business and Management.

### Concentration in Information Management

Following is the list of recommended courses for student to choose from. However, students will need approval of the BSIS Academic Program Director before registering in these courses.

Students must complete core courses (except CIS 420A and CIS 420B) and upper-division electives before taking four courses in this concentration.

### Requirements for the Concentration

(4 courses; 18 quarter units)

Students will choose **four (4)** upper-division undergraduate courses from the School of Engineering and Computing programs to create their own specialized concentration. This concentration requires prior approval from the Academic Program Director.