



STUDENT LEARNING OUTCOMES College of Business and Information Systems



Undergraduate Programs - Bachelor

B.S. Artificial Intelligence in Organizations

Upon completion of the B.S. degree in Artificial Intelligence in Organizations, students will be able to:

- Learn the basic concepts, methods, and tools of AI and understand the impact of AI and Data on business, organizations, and society
- Understand business and management principles and objectives and be able to analyze a complex business/organizational problem and to apply principles of AI to identify solutions.
- Develop strong soft skills including communications, teamwork, and leadership to be successful in AI-enhanced workplace and society.
- Design, implement, and evaluate an AI-based solution to meet a given set of requirements in an organizational context.
- Be able to participate, organize, and manage successful AI projects.
- Develop entrepreneurship skills to start AI-related new businesses.

B.B.A. Business, Accounting Specialization

Upon completion of the B.B.A. degree in Business, Accounting specialization, students will be able to:

- Research and analyze external and internal factors to make informed business decisions.
- Demonstrate effective, compelling, and logical oral communication in business environments.
- Demonstrate effective, logical writing in business communications.
- Utilize quantitative, technology-supported approaches to analyze business issues.
- Integrate the principles of ethics and social responsibility in business decision-making.
- Identify the complexity of business operations in a global environment.
- Analyze a revenue stream using revised revenue recognition standards.
- Analyze and interpret selected financial statements.
- Demonstrate an understanding the assignment of direct and indirect costs to a product, department, product line, or service.

B.B.A. Business, Business Technology Specialization

Upon completion of the B.B.A. degree in Business, Business Technology specialization, students will be able to:

- Research and analyze external and internal factors to make informed business decisions.
- Demonstrate effective, compelling, and logical oral communication in business environments.
- Demonstrate effective, logical writing in business communications.
- Utilize quantitative, technology-supported approaches to analyze business issues.
- Integrate the principles of ethics and social responsibility in business decision-making.
- Identify the complexity of business operations in a global environment.
- Apply technology concepts in enhancing/furthering business strategy.
- Align technology applications into business best practices.

B.B.A. Business, Finance Specialization

Upon completion of the BBA degree in Business, Finance specialization, students will:

- Research and analyze external and internal factors to make informed business decisions.
- Demonstrate effective, compelling, and logical oral communication in business environments.
- Demonstrate effective, logical writing in business communications.
- Utilize quantitative, technology-supported approaches to analyze business issues.
- Integrate the principles of ethics and social responsibility in business decision-making.
- Identify the complexity of business operations in a global environment.
- Organize and analyze financial data with statistical models and data analysis tools.
- Explain corporate finance concepts and use them for financing and investment decision-making
- Explain key investment concepts and techniques and use them to evaluate a variety of investment strategies
- Explain the operations of key financial markets and institutions and the interactions between the two entities.

B.B.A. Business, Management Specialization

Upon completion of the BBA degree in Management, students will:

- Research and analyze external and internal factors to make informed business decisions.
- Demonstrate effective, compelling, and logical oral communication in business environments.
- Demonstrate effective, logical writing in business communications.

- Utilize quantitative, technology-supported approaches to analyze business issues.
- Integrate the principles of ethics and social responsibility in business decision-making.
- Identify the complexity of business operations in a global environment.
- Apply the basic concepts of organizational behavior at the individual, group, and organizational levels to improve the effectiveness of an organization.
- Apply the basic concepts of human resources at the individual, group, and organizational levels to improve the effectiveness of an organization.
- Apply fundamental concepts regarding innovation to an organizational context.
- Apply fundamental concepts of finance, marketing, accounting, and economics regarding new venture development in an entrepreneurial context.
- Translate management concepts to an international context, applying the social, cultural, legal and economic differences inherent in the global environment.

B.B.A. Business, Marketing Specialization

Upon completion of the BBA degree in Business, Marketing specialization, students will:

- Research and analyze external and internal factors to make informed business decisions.
- Demonstrate effective, compelling, and logical oral communication in business environments.
- Demonstrate effective, logical writing in business communications.
- Utilize quantitative, technology-supported approaches to analyze business issues.
- Integrate the principles of ethics and social responsibility in business decision-making.
- Identify the complexity of business operations in a global environment.
- Prepare and present a technology-enhanced sales presentation by visually, verbally, and nonverbally communicating information utilizing best-practice sales techniques
- Create a market research project with results that can be used to solve business problems.
- Use promotional theories, strategies and tools to create a promotional plan that integrates current technology-enabled advertising techniques.

B.B.Ed. Business Education

Upon completion of the B.S.Ed. degree in Business Education, students will be able to:

- demonstrate a deep understanding of content and pedagogy knowledge.
- demonstrate instructional design principles by planning and preparing effective lessons and learning activities for all learners.
- engage students by delivery of effective lessons and learning activities, and ensure assessment is fully aligned with the instructional outcomes in both content and process.
- create a safe and respectful learning environment with an awareness of developmental levels and needs of learners.

- integrate technology into lessons to create interest and communicate knowledge.
- demonstrate professional dispositions of effective teachers to positively impact student learning while contributing to the well-being of their district.

B.S. Ed. Computer Education

Upon completion of the B.S.Ed. degree in Computer Education, students will be able to:

- demonstrate a deep understanding of content and pedagogy knowledge.
- demonstrate instructional design principles by planning and preparing effective lessons and learning activities for all learners.
- engage students by delivery of effective lessons and learning activities, and ensure assessment is fully aligned with the instructional outcomes in both content and process.
- create a safe and respectful learning environment with an awareness of developmental levels and needs of learners.
- integrate technology into lessons to create interest and communicate knowledge.
- demonstrate professional dispositions of effective teachers to positively impact student learning while contributing to the well-being of their district.

B.S. Computer Information Systems

Upon completion of the B.S. degree in Computer Information Systems, students will be able to:

- demonstrate the ability to analyze, identify, and define the requirements needed to address business problems and opportunities with technical solutions.
- design applications for business using programming tools, techniques, and frameworks.
- demonstrate proficiency in structuring, collecting and analyzing data to support business operations and strategic decision-making.
- demonstrate a working knowledge of computer hardware, programming, and database management systems.
- demonstrate knowledge of business disciplines, especially areas that can be optimized through the use of technology.

B.S. Health Information Administration

Upon completion of the B.S. degree in Health Information Administration, students will be able to:

- plan and develop a health information management system appropriate for varying sizes and types of health care facilities, organizations and agencies.
- manage the personnel working in a health information management department.
- perform the following management functions as they relate to a health information management system: facility design, financial planning, budgetary control, selection of

equipment and supplies, systems analysis and evaluation of the effectiveness of departmental services.

- develop and implement policies and procedures for information handling and dissemination in accordance with professional ethics and in conformity with applicable federal, state and local statutes and regulations.
- design a system to maintain the privacy and confidentiality of health information.
- develop, analyze and evaluate health data retention and retrieval systems.
- collect and analyze patient and institutional data for health care and health-related programs.
- assist in research and statistical analysis to provide administrative and clinical information for institutional management and to evaluate patient care.
- assist in the development and coordination of programs to assure quality of patient care and appropriate utilization of services as required by the facility, organization or agency.
- develop in-service education materials and conduct and evaluate instructional programs for health information management personnel.
- coordinate and integrate the efforts of the health information management department with those of other departments to achieve institutional goals.
- participate in committee functions relative to health information management administrative activities and quality management studies.
- support and practice the ethical principles of health care and health information management.

B.S. Professional Accountancy

Upon completion of the B.S. degree in Professional Accountancy, students will be able to:

- demonstrate effective, compelling, and logical oral communication in business environments.
- demonstrate effective, logical writing in business communications.
- utilize quantitative, technology-supported approaches to analyze business issues.
- work and communicate as a team to research and analyze external and internal factors to make informed business decisions.
- integrate the principles of ethics and social responsibility in business decision-making.
- identify the complexity of business operations in a global environment.
- demonstrate ability to conduct tax law.
- demonstrate knowledge of the basic concepts of legal business entities.

Undergraduate Programs - Associate

A.S. Business Management

Upon completion of the A.S. degree in Business Management, students will be able to:

- demonstrate knowledge of the conceptual and functional areas of business.
- demonstrate effective written business communication skills.
- identify the ethical and legal parameters within the business environment.

A.S. Health Information Technology

Upon completion of the A.S. degree in Health Information Technology, students will be able to: technically analyze and evaluate health records according to standards established by current law, regulations and accrediting agencies.

- compile and utilize various types of administrative and health statistics, e.g., patient census, daily discharge analysis, monthly patient data reports and vital statistics.
- code symptoms, diseases, operations, procedures and other therapies according to recognized classifications systems.
- release health information in accordance with professional ethics and in conformity with institutional policy and legal provisions.
- maintain and utilize a variety of health record indices, storage and retrieval systems.
- perform patient registration activities.
- understand and demonstrate knowledge of the transcription function within a health care organization.
- complete and/or verify discharge data abstracts.
- prepare health data information for computer processing, storage and retrieval.
- maintain specialized registries, such as cancer, trauma, stroke, organ.
- abstract and retrieve health information used for evaluating patient care and planning in health care and health-related programs.
- participate in committee functions relative to health information management and patient information systems.
- provide data to health care facility staff in quality management studies, utilization review, risk management, planning and research activities.
- supervise one or more health information management service activities such as: transcription, word processing, filing, coding and indexing, statistics and correspondence.

A.S. Web Development

Upon completion of the A.S. degree in Web Development, students will be able to:

- demonstrate the ability to write code using sequence selection and repetition.
- understand and effectively manage the process of developing, designing, testing, and delivering a program or web page.
- manipulate data efficiently to make optimal use of computing resources.
- identify, analyze, and take user needs into account in the programming process.
- write, test, and maintain computer programs and/or web applications in at least three languages.

Undergraduate Programs - Certificate

Certificate in Data Analytics

Upon completion of the Certificate in Data Analytics, students will be able to:

- Use information technology and computing languages to implement analytics solutions.
- Select and appropriate analytics techniques and apply advanced analytical tools to solve data analytics problems
- Understand basic database concepts and apply database design principles such as ER diagrams and normalization to design and implement a database management system.
- Retrieve data storage in a database using the Structured Query Language (SQL).
- Prepare and transform Big Data sets into actionable information in an easy-to-understand format to support business decision making through the use of advanced data processing tools
- Communicate the results of the analysis to stakeholders in the optimal combination of graphical/visual and written/verbal means

Certificate in Health Care Coding

Upon completion of the Certificate in Health Care Coding, students will be able to:

- code symptoms, diseases, operations, procedures and other therapies according to recognized classifications systems.
- abstract records for department indices/databases/registries.
- perform qualitative and quantitative analysis of health records to evaluate compliance with regulations and standards.
- assist in the facility's billing process.
- assist in using coded data for strategic planning/reporting.

Certificate in Health Information Specialist

Upon completion of the Certificate in Health Information Specialist, students will be able to:

- perform entry-level tasks in the health information field.
- demonstrate an understanding of the health information management profession and roles.
- interpret basic medical terminology used in health care settings.
- demonstrate an understanding of the legal aspects of health information management.
- complete release of information requests for paper and/or electronic health information.
- understand HIPAA rules and regulations.
- recognize components of the electronic health record and understand their purpose and contents.

Certificate in IS Management: Information Technology Management

Upon completion of the Certificate in IS Management: Information Technology Management, students will be able to:

- understand the development and utilization of information technology within organizations.
- understand relational database design and data management using basic Structured Query Language (SQL).
- write computer programs in a programming language using sequence, selection, and repetition programming structures.
- demonstrate a broad understanding of computer hardware, computer architecture, virtualization, and data communications.

Certificate in IS Management: Technology Database Management Systems

Upon completion of the Certificate in IS Management: Technology Database Management, students will be able to:

- understand the analysis, planning, designing, testing, and implementation of an information system.
- understand relational database design and data management using basic and advanced Structured Query Language (SQL).
- write computer programs in a programming language using sequence, selection, and repetition programming structures.

Certificate in Project Management

Upon completion of the Certificate in IS Management: Technology Database Management, students will be able to:

- Understand the application of information technology in an organization
- Understand the role of managers in the planning, development, and use of information systems
- Use project management software
- Apply knowledge, skills, tools, and techniques for completing a project on time and within budget
- Understand and propose solutions to problems encountered in project management

Certificate in IS Management: Web Application Development

Upon completion of the Certificate in IS Management: Web Application Development, students will be able to:

- write computer programs in a programming language using sequence, selection, and repetition programming structures.
- use modern programming languages, techniques, and frameworks to develop secure, data driven web applications using both client and server-side technologies.
- understand relational database design and data management using basic Structured Query Language (SQL).

Graduate Programs – Doctoral

Ph.D. Information Systems

Upon completion of the Ph.D. degree in Information Systems, students will be able to:

- demonstrate a broad and comprehensive understanding of core knowledge and fundamental practices in information systems.
- demonstrate conceptual knowledge and ability to utilize prevalent technologies of information systems.
- demonstrate a highly developed knowledge of information systems literature, particularly in their area of specialization.
- demonstrate a scholarly understanding of milestones and seminal works of leading researchers in their area of specialization.
- demonstrate an understanding of information systems research methods and an ability to conduct research and evaluate research results.
- effectively formulate, communicate, present and defend the results of their research and any conclusions drawn from it.

Graduate Programs - Master

M.B.A. Business Administration

Upon completion of the M.B.A. degree in Business Administration, students will be able to:

- synthesize and apply functional knowledge in the fields of economics, management, marketing, operations, finance, and accounting.
- utilize current technology, information literacy, and qualitative and quantitative analysis in business decision-making.
- demonstrate analytical and decision-making skills necessary to lead an organization.
- demonstrate knowledge of techniques for dealing with ethical issues and dilemmas that businesses encounter.

M.S. Analytics

Upon completion of the M.S. degree in Analytics, students will be able to:

- prepare and transform data sets into actionable information in an easy-to-understand format to support analytics through the use of advanced data processing tools.
- select the appropriate analytics techniques and apply advanced analytical tools to solve data analytics problems.
- demonstrate a good understanding of using information technology and computing languages to implement analytics solutions.
- assess alternative approaches and infrastructures for implementing big data analytics.
- manage data analytics projects to ensure delivery of a successful data analytics initiative throughout its life cycle.
- interpret the results of the analysis.

M.S. Health Informatics and Information Management

Upon completion of the M.S. degree in Health Informatics and Information Management, students will be able to:

- apply and integrate the fundamental concepts of information technology in a clinical setting.
- facilitate communication between health care providers and IT professionals implementing health care information technology.
- demonstrate a theoretical and practical understanding of the use of health care information.
- provide leadership in developing, implementing, maintaining, and managing information resources and systems in health care organizations.
- apply fundamental research concepts to support the use of health information in research projects.
- manage information technology applications in the health care industry (storage, retrieval, and interpretation of patient care information).
- provide administrative support for the implementation and management of the complex information systems used in the health care industry.

M.S. Information Systems

Upon completion of the M.S. degree in Information Systems, students will be able to:

- perform the tasks of an Information Systems professional.
- successfully adapt to new environments and technologies.
- demonstrate knowledge of information systems and a selected specialization.

- understand and apply current and emerging computer software technologies including CASE programming, database management, Internet and electronic commerce, and network operating environments.
- translate user requirements into effective computer-based systems.
- understand the effective management of information systems applications.

Graduate Programs - Certificate

Certificate in Business Analytics

Upon completion of the Graduate Certificate in Business Analytics, students will be able to:

- use advanced data processing tools to prepare and transform data sets into a format suitable for analytics.
- select the appropriate analytics techniques and apply advanced analytical tools to solve data and analytics problems.
- manage data analytics projects to ensure delivery of a successful data analytics initiative throughout its life cycle.
- interpret the results of data analytics.

Certificate in Information Technology

Upon completion of the Graduate Certificate in Information Technology, students will be able to:

- understand systems theory, quality, decision-making, and the organizational role of information systems.
- understand two of the following four IT subjects (depending on which two elective courses are completed):
 - principles and techniques used in managing information systems and organizational change projects.
 - client and server-side web programming skills to create dynamic web sites.
 - Internet, Intranet, local and wide area network design, technical requirements, operation, and management.
 - techniques in designing and implementing enterprise models, database design and implementation technologies.

Certificate in Healthcare Data Analytics

Upon completion of the Graduate Certificate in Healthcare Data Analytics, students will be able to:

- construct information system capabilities.
- design data sources for intelligence extraction.
- create business intelligence through data analytics.
- create data visualization techniques.
- create statistical business models to leverage enterprise-wide information assets.