

MANAGEMENT INFORMATION SYSTEMS AND ANALYTICS (MISA)

MISA 1225 Introduction to Computer Applications (formerly CISY 1225)

3 credit hours

This course is an introduction to computers and their use in a number of different environments. The emphasis is placed on learning the use of common business software packages and programming. Other topics will include computer hardware and software, data processing and information systems.

MISA 2320 Business Applications Programming (formerly CISY 2320)

3 credit hours

Prerequisite: MISA 1225 or CSCI 1226

This is a foundation programming language course that presents fundamental principles used in writing business applications. Primitive data types, objects, controls, basic data structure, flow control constructs, reusable modules, and debugging techniques are covered. Further topics include parameter passing methods, arrays, error handling, and file processing. The implementation language, such as Visual Basic, will utilize object-oriented programming concepts. This course is a foundation course for the CISY program.

MISA 2325 Applied Information Systems (formerly CISY 2325)

3 credit hours

Prerequisite: MISA 1225 or CSCI 1226 or EGNE 1206

The objective of this course is to learn to use IT effectively to perform business processes to ensure the success of Micro, small, medium and large enterprises. Data security and controls, data and knowledge management, telecommunications and networking, e-commerce, wireless and mobile commerce, social computing, customer relationship management and supply chain management, business intelligence and analytics, artificial intelligence and machine learning, ethics and privacy are some of the topics that will be covered.

MISA 3326 Database Programming (formerly CISY 3326)

3 credit hours

Prerequisite: MISA 1225 or CSCI 1226

This course covers topics in modeling data to meet organizational requirements, programming business applications on a current database management platform, the SQL command language, and managing data security and database administration. Also included are topics on hierarchical, distributed, and object oriented databases.

MISA 3327 Web Information Systems (formerly CISY 3327)

3 credit hours

Prerequisite: MISA 1225

This course introduces students to web information systems, a sub-area of MISA that focuses on those systems that interact with the World Wide Web. Course content includes a survey of WIS applications, conceptual foundations for the design and integration of WIS applications, as well as hands-on experience designing and building WIS applications. Specific topics may include the design, implementation, management and evaluation of web pages, web-enabled applications, and web-integrated databases.

MISA 3400 Business Analytics (formerly CISY 3400)

3 credit hours

Prerequisite: MISA 1225

This course is designed to use quantitative techniques for management decision making with applications in business. The content includes topics in decision analysis, mathematical programming, statistical decision support modeling, and data analysis.

MISA 3826 – 3849 Special Topics in Management Information Systems & Analytics

3 credit hours

Course content varies from year to year.

MISA 4425 Systems Analysis and Design (formerly CISY 4425)

3 credit hours

Prerequisite: COMM 2293, MISA 2325 or ACCT 3323, and MISA 3326 or CSCI 3461

Students are provided with the necessary skills to successfully apply state-of-the-art information systems methodologies to the planning, analysis, design, and implementation phases of information systems projects. These skills include, but are not limited to, information systems strategy development, requirements analysis for business processes, business process modeling techniques, data and architectural modeling techniques, and project management skills and techniques. Students work in teams to perform a real-life systems analysis and design exercise for a business organization.

Note: COMM 2293 is not required for students in the B.Sc. in Computing Science and Business Administration program.

MISA 4435 Information Systems Projects and Practice (formerly CISY 4435)

3 credit hours

Prerequisite: MISA 4425 or CSCI 3428, or permission of instructor

This course focuses on the design and development of information systems (IS) to support business decision-making. Students explore different types of decision support systems (DSS), including expert systems, simulation, and data mining. IS project management techniques are reinforced via a team-based DSS design project. Expectations of new entrants into IS careers, including required technical and business competencies, ethical obligations, and professional conduct, are also addressed.

MISA 4436 Communication Networks and Security (formerly CISY 4436)

3 credit hours

Prerequisite: MISA 1225 or CSCI 1226

This course is an introduction to computer network hardware and software required for small, medium and large enterprises. Topics include: client-server and cloud architectures, fundamental concepts of wireless networks, TCP/IP networks, and wide area networks. Security topics such as identifying networked enterprise threats, and security technologies for the purposes of secure communications, storage, and retrieval, are also covered.

**MISA 4490 Seminar in Management Information Systems & Analytics
(formerly Cisy 4490)**

3 credit hours

Prerequisite: COMM 2293 and permission of Chairperson

This course deals with selected topics in management information systems and analytics. It is offered when in sufficient demand, and specific topics covered may vary depending on the interest of the students and instructor.

MISA 4826 – 4849 Special Topics in Management Information Systems & Analytics

3 credit hours

Course content varies from year to year.

MISA 4876 – 4899 Directed Study

3 credit hours

Prerequisite: COMM 2293 and permission of Chairperson

This course is intended to supplement regular computing and information systems courses in order to meet the special needs and interests of students. Students are provided with an opportunity to study a particular subject in detail.