

# COMPUTING & INFO SYSTEMS (CISY)

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## **CISY 1225 Intro to Computer Applications**

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.

## **CISY 2320 Bus Applications Programming**

3 credit hours

**Prerequisite:** CISY 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.

## **CISY 3326 Database Programming**

3 credit hours

**Prerequisite:** CISY 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.

## **CISY 3327 Web Information Systems**

3 credit hours

**Prerequisite:** CISY 1225

This course introduces students to web information systems, a sub-area of CISY 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.

## **CISY 4425 System Analysis and Design**

3 credit hours

**Prerequisite:** COMM 2293, ACCT 3323 and CISY 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.

## **CISY 4435 Info Systems Proj & Practice**

3 credit hours

**Prerequisite:** CISY 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.

## **CISY 4436 Comm Network & Security**

3 credit hours

**Prerequisite:** CISY 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.

## **CISY 4490 Seminar in CIS**

3 credit hours

**Prerequisite:** COMM 2293 and permission of Chairperson.

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

## **CISY 4491 Small Business Consultancy**

3 credit hours

**Prerequisite:** COMM 2293 and permission of Chairperson.

This course allows students to gain hands-on business experience by working with clients of the Saint Mary's University Entrepreneurship Centre. Student groups receive a project proposal outlining the requirements, information needs and services they will provide the client during the semester. Projects generally take the form of a business plan, market study, or other business-related function and often involve financial projections. Each project provides students an opportunity to use skills learned in business courses and to understand the interrelationship between marketing, accounting, finance, and management in a practical business setting. Under supervision, students prepare a professional report and final presentation that communicate the project's results for the client.

## **CISY 4876 Directed Study**

3 credit hours