

# College of St. Scholastica - Curriculum Map

Course #: CIS 3205      Subject: Information Systems

*Note: All Units follow the College's general, and the CIS Department's specific Curriculum Standards*

Semester Units	Content	Skills for Student Achievement	Assessment
Unit 1	<p><b>Introduction to Information Systems:</b> In this Unit, we will go through introductions and begin exploring Information Systems and the Digital Age. In addition, Unit 1 is an introduction to the basic terms and formatting involved with making worksheets in Excel. All the Units in this course have Excel and data activities directly incorporated into them, and require a good understanding of the basic skills involved in spreadsheet and database management.</p> <p>Specific Content Includes:</p> <ul style="list-style-type: none"> <li>• Introduction to Excel</li> <li>• Creating Simple Formulas</li> <li>• Select, Copy, Move, Paste Data in Excel</li> <li>• Managing in the Digital World</li> </ul>	<ul style="list-style-type: none"> <li>• Describe the characteristics of the digital world and the advent of the information age.</li> <li>• Define globalization, describe how it evolved over time, and describe the key drivers of globalization.</li> <li>• Explain what an information system is, contrasting its data, technology, people, and organizational components.</li> <li>• Describe the dual nature of information systems in the success and failure of modern organizations.</li> <li>• Enter and edit cell data</li> <li>• Create Formulas and use Autofill</li> <li>• Manage Worksheets, Columns, and Rows</li> <li>• Select, Move, Copy, and Paste Data in different cells and worksheets</li> <li>• Apply Alignment, Number Formats and Font Options to worksheets</li> <li>• Select Page Setup options, Preview and Print workbooks</li> </ul>	<p>The Student Will:</p> <ul style="list-style-type: none"> <li>• Submit Excel Hands-On Exercises: 1 – 6</li> <li>• Enter an initial discussion post</li> <li>• Enter a response post</li> </ul>
Unit 2	<p><b>The Importance of MIS</b> In this Unit we will lay the foundations for the rest of the course by defining MIS and explaining how organizational strategy determines the structure and functions of all management information systems (MIS) components.</p>	<ul style="list-style-type: none"> <li>• Present an overview of Management Information Systems (MIS)</li> <li>• Explain how MIS relates to organizational strategy</li> <li>• Identify the five forces that determine industry structure.</li> <li>• Understand what competitive strategy is.</li> <li>• Explain how competitive strategy determines value chain structure.</li> <li>• Explain how competitive strategy determines business processes and information systems.</li> </ul>	<p>The Student Will:</p> <ul style="list-style-type: none"> <li>• Complete the Group Project: Systems Thinking</li> <li>• Complete the Application Exercise</li> <li>• Enter an initial discussion post</li> <li>• Enter a response post</li> <li>• Complete the Unit 2 Quiz</li> </ul>
Unit 3	<p><b>Business Processes, Information Systems, and Information</b> In this Unit we will define and illustrate business processes, information systems, and information, and</p>	<ul style="list-style-type: none"> <li>• Define a business process.</li> <li>• Define information and an information system.</li> <li>• Explain the relationships between business processes and information systems.</li> </ul>	<p>The Student Will:</p> <ul style="list-style-type: none"> <li>• Complete the Using Your Knowledge: Chapter 2-1, pg. 43.</li> </ul>

	examine how the relationships between these three constructs set the foundation for the rest of this course.	<ul style="list-style-type: none"> <li>• Identify the variance in structured and dynamic processes.</li> <li>• Explain the necessary characteristics of data.</li> </ul>	<ul style="list-style-type: none"> <li>• Complete the Application Exercise</li> <li>• Enter an initial discussion post</li> <li>• Enter a response post</li> </ul>
Unit 4	<p><b>Hardware, Software, and Networks</b></p> <p>Unit 4 discusses hardware, software, and computer networks. We will define basic terms and fundamental computing concepts, including such things as thin-client and native applications, all the while focusing on business decision making in the context of relevant computing equipment and necessary software.</p>	<ul style="list-style-type: none"> <li>• Identify what business professionals need to know about computer hardware.</li> <li>• Identify what business professionals need to know about software.</li> <li>• Recognize the differences between native and thin-client applications.</li> <li>• Define what characterizes quality mobile user experiences.</li> <li>• Identify what business professionals need to know about data communications.</li> <li>• Explain what happens on a typical Web server.</li> <li>• Discuss why the cloud is considered the future for most organizations.</li> </ul>	<p>The Student Will:</p> <ul style="list-style-type: none"> <li>• Complete the Application Exercise: Chapter 3-2, pg. 404</li> <li>• Complete the Group Collaboration Project</li> <li>• Enter an initial discussion post</li> <li>• Enter a response post</li> <li>• Complete the Unit 4 Quiz</li> </ul>
Unit 5	<p><b>About Database Processing</b></p> <p>This Unit will describe database processing, and the purpose and roles for databases and database applications. We will also discuss how to create simple entity-relationship data models, which are abstractions from which you can create database structure, and will examine database modeling and design.</p>	<ul style="list-style-type: none"> <li>• Identify what the purpose of a database is.</li> <li>• Identify what the contents of a database are.</li> <li>• Explain what the components of a database application system are.</li> <li>• Understand how data models facilitate database design.</li> <li>• Explain how a data model is transformed into a database design.</li> <li>• Explain the importance of NoSQL and Big Data.</li> <li>• Explain how competitive strategy determines business processes and information systems.</li> </ul>	<p>The Student Will:</p> <ul style="list-style-type: none"> <li>• Enter an initial discussion post</li> <li>• Enter a response post</li> <li>• Complete the Unit 5 Quiz</li> <li>• Complete the Application Practicum: Extreme Sushi Cost Benefit Analysis</li> </ul>
Unit 6	<p><b>Using IS to Improve Processes</b></p> <p>This Unit lays the foundations for the rest of the course by defining MIS and explaining how organizational strategy determines the structure and functions of all management information systems (MIS) components.</p>	<ul style="list-style-type: none"> <li>• Present an overview of Management Information Systems (MIS)</li> <li>• Explain how MIS relates to organizational strategy</li> <li>• Identify the five forces that determine industry structure.</li> <li>• Understand what competitive strategy is.</li> <li>• Explain how competitive strategy determines value chain structure.</li> <li>• Explain how competitive strategy determines business processes and information systems.</li> </ul>	<p>The Student Will:</p> <ul style="list-style-type: none"> <li>• Enter an initial discussion post</li> <li>• Enter a response post</li> <li>• Complete the Unit 6 Quiz</li> <li>• Complete the Group Collaboration Project</li> </ul>

			<ul style="list-style-type: none"> <li>• Complete the Application Exercise: Chapter 5-2, pg. 408</li> </ul>
Unit 7	<p><b>Supporting Processes with ERP Systems</b></p> <p>This Unit continues the discussion of structured processes and related information systems. In addition, we will introduce Enterprise Resource Planning (ERP) systems that support many business processes by consolidating all the data for the business in one large and complex database. We will also discuss Systems Applications and Products (SAP), a common ERP system, and describes the fundamentals of how it works.</p>	<ul style="list-style-type: none"> <li>• Identify the ERP system as a problem solving tool.</li> <li>• Identify the elements of an ERP system.</li> <li>• Explain the benefits of an ERP system.</li> <li>• Explain the challenges of implementing an ERP system.</li> <li>• Identify the types of organizations that use ERPs.</li> <li>• Identify the major ERP vendors.</li> <li>• Explain the difference between SAP and other ERP products.</li> <li>• Explain how competitive strategy determines business processes and information systems.</li> </ul>	<p>The Student Will:</p> <ul style="list-style-type: none"> <li>• Enter an initial discussion post</li> <li>• Enter a response post</li> <li>• Complete the Unit 7 Quiz</li> <li>• Complete the Application Exercise: Chapter 6-1, pg. 409.</li> <li>• Complete the Using Your Knowledge: Questions 6-1</li> </ul>
Unit 8	<p><b>Supporting the Procurement Process with SAP</b></p> <p>This Unit shows how SAP is used in two representative business processes, procurement and sales. As processes that are fundamental to business and are widely used, these two processes, buying and selling, were chosen to demonstrate what is common to all processes and what might differ between processes.</p>	<ul style="list-style-type: none"> <li>• Understand the fundamentals of a Procurement process.</li> <li>• Explain how the Procurement process at CBI worked before SAP.</li> <li>• Identify the main problems with the Procurement process before SAP.</li> <li>• Explain how CBI implements SAP.</li> <li>• Explain how the Procurement process works at CBI after SAP.</li> <li>• Explain how SAP can improve supply chain processes at CBI.</li> <li>• Explain how the use of SAP changes CBI.</li> <li>• Explain how new IS will affect the Procurement process in 2024.</li> </ul>	<p>The Student Will:</p> <ul style="list-style-type: none"> <li>• Enter an initial discussion post</li> <li>• Enter a response post</li> <li>• Complete the SAP Procurement Tutorial</li> <li>• Complete the Mid-Term Exam – Units 1 thru 7</li> </ul>
Unit 9	<p><b>Ethics for IT Workers and IS Users</b></p> <p>This Unit examines professional standards and ethics for IT workers and IS users.</p>	<ul style="list-style-type: none"> <li>• Identify the key characteristics that distinguish a professional from other kinds of workers, and answer if an IT worker is considered a professional.</li> <li>• Recognize the factors that are transforming the professional services industry.</li> <li>• Explain the relationships that an IT worker must manage, and describe the key ethical issues that can arise in each.</li> <li>• Examine how codes of ethics, professional organizations, certification, and licensing affect the ethical behavior of IT professionals.</li> </ul>	<p>The Student Will:</p> <ul style="list-style-type: none"> <li>• Enter an initial discussion post</li> <li>• Enter a response post</li> <li>• Complete the Unit 9 Quiz</li> <li>• Complete the Cyber Security Simulation.</li> </ul>

		<ul style="list-style-type: none"> <li>• Discuss compliance and evaluate how it helps promote the right behaviors and discourage undesirable ones.</li> <li>• Research and assess IT Usage policies.</li> </ul>	
Unit 10	<p><b>Collaboration and IS</b></p> <p>In the next few Units we will discuss dynamic processes such as collaboration, social media, and business intelligence as not being an end unto themselves; but instead as how they are executed to support other business processes.</p> <p>More specifically, in this Unit we will examine how the three dynamic processes support business processes such as project management, promotion, and decision making. We will focus on successful output, growth in team capability, as well as meaningful and satisfying experience, within the context of communication and iteration.</p>	<ul style="list-style-type: none"> <li>• Define what collaboration is, and why it's important to business.</li> <li>• Identify what the objectives of the collaboration process are.</li> <li>• Explain what the key components of a collaboration IS are.</li> <li>• Explain how collaboration IS can support the communicating activity.</li> <li>• Explain how collaboration IS can support the iterating activity.</li> <li>• Explain how collaboration IS can support business processes.</li> <li>• Explain how to select the right collaboration IS for your team.</li> </ul>	<p>The Student Will:</p> <ul style="list-style-type: none"> <li>• Enter an initial discussion post</li> <li>• Enter a response post</li> <li>• Complete the Unit 10 Quiz</li> <li>• Complete the Group Project: Building a Collaboration IS</li> <li>• Complete the Application Exercise: Chapter 9-1, pg. 414</li> </ul>
Unit 11	<p><b>Social Media and IS / Business Case Analysis</b></p> <p>In this Unit, we will continue our examination of how the three dynamic processes support business processes of project management, promotion, and decision making. Specifically, we will focus on social media for people to generate a sense of belonging, social media for businesses as a support strategy, and social media for app providers in the context of market share. We will also examine the activities of creating and sharing content.</p>	<ul style="list-style-type: none"> <li>• Defining social media, and why it is important to business.</li> <li>• Explain what the objectives of the social media process are.</li> <li>• What the key components of a social media IS are.</li> <li>• Explain how social media IS supports social media activities.</li> <li>• Explain how social media IS can support business processes.</li> <li>• Explain how social media IS can support the process of building social capital.</li> <li>• Explain how businesses manage the risks of social media.</li> </ul>	<p>The Student Will:</p> <ul style="list-style-type: none"> <li>• Enter an initial discussion post</li> <li>• Enter a response post</li> <li>• Complete the Unit 11 Quiz</li> <li>• Complete the Using Your Knowledge: Using Zillow</li> <li>• Complete the Wiki Application Exercise: Chapter 10-2, pg. 414.</li> </ul>
Unit 12	<p><b>Business Intelligence and IS</b></p> <p>In this Unit, we will complete our examination of how the three dynamic business processes of project management, promotion, and decision making. Specifically, we will focus on business intelligence information used to both assess and predict, and the activities of acquiring, analyzing, and publishing.</p>	<ul style="list-style-type: none"> <li>• Define business intelligence, and why it is important to business.</li> <li>• Identify what the objectives of the Business Intelligence (BI) process are.</li> <li>• Identify what the key components of a business intelligence IS are.</li> <li>• Explain how BI information systems support BI activities.</li> <li>• Explain how BI information systems can support business processes.</li> </ul>	<p>The Student Will:</p> <ul style="list-style-type: none"> <li>• Enter an initial discussion post</li> <li>• Enter a response post</li> <li>• Complete the Unit 12 Quiz</li> <li>• Complete the Group Project: Research Project – The Freshman App Pack</li> </ul>

		<ul style="list-style-type: none"> <li>• Define a Big Data BI system, and how is it used.</li> <li>• Explain how businesses manage the risks of business intelligence.</li> <li>• Explain how SAP does BI.</li> <li>• Explain how competitive strategy determines business processes and information systems.</li> </ul>	<ul style="list-style-type: none"> <li>• Complete the Application Exercise: Chapter 11-1, pg. 415</li> </ul>
Unit 13	<p><b>MIS Management Processes - Systems Development</b></p> <p>MIS, like all business endeavors, accomplishes work via processes. The typical IS department has processes for planning, developing, maintaining, and operating enterprise and interenterprise systems. The IS department is involved in the support of other departments and end users as well.</p>	<ul style="list-style-type: none"> <li>• Identify what the activities of business process management are.</li> <li>• Identify what the activities of the Systems Development Life Cycle (SDLC) development process are.</li> <li>• Explain how the scrum process can overcome the problems of the SDLC.</li> </ul>	<p>The Student Will:</p> <ul style="list-style-type: none"> <li>• Enter an initial discussion post</li> <li>• Enter a response post</li> <li>• Complete the Unit 13 Quiz</li> <li>• Complete the Using Your Knowledge: Exercises 12-1</li> <li>• Complete the Application Exercise: Chapter 12-1, pg. 417</li> </ul>
Unit 14	<p><b>MIS Management Processes – Security</b></p> <p>In this Unit we will consider another MIS management processes that is likely to involve you as a future business professional, the processes for protecting IS.</p> <p>We will explore three reasons for IS security. First, we will explore the major dimensions of IS security for an organization, including the kinds of security safeguards that should be in place. Second, if those safeguards are not in place, we will discuss how to argue effectively for their creation. Third, we will examine the rationale for protecting the information systems that are used, and the accompanying responsibilities, and necessary knowledge to fulfill those roles.</p>	<ul style="list-style-type: none"> <li>• Define information systems security.</li> <li>• Explain how you should respond to security threats.</li> <li>• Explain how organizations should respond to security threats.</li> <li>• Explain how technical and data safeguards can protect against security threats.</li> <li>• Explain how human safeguards can protect against security threats.</li> <li>• Explain how organizations should respond to security incidents.</li> </ul>	<p>The Student Will:</p> <ul style="list-style-type: none"> <li>• Enter an initial discussion post</li> <li>• Enter a response post</li> <li>• Complete the Unit 14 Quiz</li> <li>• Complete the Application Exercise: Chapter 12-4, pg. 417</li> <li>• Complete the Final Project Outline</li> </ul>
Unit 15	<p><b>Final Project</b></p> <p>In this unit you will apply IT Strategic Planning skills by developing a strategic plan for an organization or business of your choice.</p>	<ul style="list-style-type: none"> <li>• List overall guidelines for successful communications.</li> <li>• Write effective letters, memos, and e-mail messages.</li> <li>• Measure the readability of written material.</li> <li>• Organize and prepare written reports that are required during systems development.</li> <li>• Follow guidelines for effective oral communication.</li> </ul>	<p>The Student Will:</p> <ul style="list-style-type: none"> <li>• Enter an initial discussion post</li> <li>• Enter a response post</li> <li>• Submit Collaborative Team Final Project:</li> </ul>

		<ul style="list-style-type: none"> <li>• Plan, develop, and deliver a successful presentation.</li> <li>• Use effective speaking techniques to achieve your objectives.</li> <li>• Manage and strengthen your communication skills.</li> </ul>	<ul style="list-style-type: none"> <li>○ Completed Worksheets</li> <li>○ Strategic Plan PowerPoint Presentation</li> <li>○ IT Strategic Plan Presentation Poster</li> </ul>
Unit 16	<p><b>Reflections &amp; Presentation</b> Present Final Project at the End of the Semester CIS Student Show Case</p>		