

CTS 115
INFORMATION SYSTEMS BUSINESS CONCEPTS

COURSE DESCRIPTION:

Prerequisites: None

Corequisites: None

The course introduces the role of IT in managing business processes and the need for business process and IT alignment. Emphasis is placed on industry need for understanding business challenges and developing/managing information systems to contribute to the decision making process based on these challenges. Upon completion, students should be able to demonstrate knowledge of the 'hybrid business manager' and the potential offered by new technology and systems. This course has been approved for transfer under the CAA and ICAA as a premajor and/or elective course requirement.

Course Hours per Week: Class, 3. Semester Hours Credit, 3.

LEARNING OUTCOMES:

Upon successful completion of this course, the student will be able to:

- a. Describe the information age and the differences among data, information, business intelligence and knowledge
- b. Identify competitive advantages
- c. Strategize and measure organizational structures to support strategic initiatives
- d. Store and access information through databases and data warehouses
- e. Streamline business operations through decision making, management, and ERP
- f. Create innovative organizations, eBusiness, and collaborative partnerships
- g. Analyze and develop software for organizations

OUTLINE OF INSTRUCTION:

- I. Business Driven Technology
 - A. Describe the information age and the differences between data, information, business intelligence, and knowledge
 - B. Identify the different departments in a company and why they must work together to achieve success
 - C. Explain systems thinking and how management information systems enable business communications
- II. Identifying Competitive Advantages
 - A. Explain why competitive advantages are temporary
 - B. Describe Porter's Five Forces Model and explain each of the five forces

- C. Compare Porter's three generic strategies
 - D. Demonstrate how a company can add value by using Porter's value chain analysis
- III. Strategic Initiatives for Implementing Competitive Advantages
- A. Explain supply chain management and its role in business
 - B. Explain customer relationship management systems and how they can help organizations understand their customers
 - C. Summarize the importance of enterprise resource planning systems
 - D. Identify how an organization can use business process reengineering to improve its business
- IV. Measuring the Success of Strategic Initiatives
- A. Define metrics and describe the relationship between efficiency IT metrics and effectiveness IT metrics
 - B. Explain why a business would use metrics to measure the success of strategic initiatives
- V. Organizational Structures that Support Strategic Initiatives
- A. Define the primary IT roles along with their associated responsibilities
 - B. Explain the gap between IT and business professionals
 - C. Explain why ethics and security are fundamental building blocks of business today
- VI. Valuing Organizational Information
- A. Explain the four primary traits that determine the value of information
- VII. Storing Organizational Information - Databases
- A. Describe a database, a database management system, and the relational database model
 - B. Identify the business advantages of a relational database
 - C. Explain the business benefits of a data-driven website
 - D. Explain why an organization would want to integrate its database
- VIII. Accessing Organizational Information - Data Warehouse
- A. Describe the roles and purposes of data warehouses and data marts in an organization
 - B. Identify the advantages of using business intelligence to support managerial decision making
- IX. Enabling the Organization - Decision Making
- A. Explain the importance of decision making for managers at each of the three primary organization levels along with the associated decision characteristics
 - B. Classify the different operational support systems, managerial support systems, and strategic support systems, and explain how managers can use these systems to make decisions and gain competitive advantages
 - C. Describe artificial intelligence and identify its five main types

- X. Extending the Organization - Supply Chain Management
 - A. Describe the four changes resulting from advances in IT that are driving supply chains
 - B. Summarize the best practices for implementing a successful supply chain management system

- XI. Building a Customer-Centric Organization - Customer Relationship Management
 - A. Define customer relationship management and its role in supporting business operations
 - B. Identify the three current CRM trends

- XII. Integrating the Organization from End to End - Enterprise Resource Planning
 - A. Describe the role information plays in enterprise resource planning systems
 - B. Explain the business value of integrating supply chain management, customer relationship management, and enterprise resource planning systems
 - C. relationship management, and enterprise resource planning systems

- XIII. Creating Innovative Organizations
 - A. Compare disruptive and sustaining technologies and explain how the Internet and WWW caused business disruption
 - B. Describe Web 1.0 along with eBusiness and its associated advantages

- XIV. eBusiness
 - A. Compare the four categories of eBusiness models
 - B. Describe the six eBusiness tools for connecting and communicating
 - C. Identify the four challenges associated with eBusiness

- XV. Creating Collaborative Partnerships
 - A. Explain Web 2.0 and identify its four characteristics
 - B. Explain how Business 2.0 is helping communities network and collaborate
 - C. Describe the three Business 2.0 tools for collaborating
 - D. Explain the three challenges associated with Business 2.0
 - E. Describe Web 3.0 and the next generation of online business

- XVI. Integrating Wireless Technology in Business
 - A. Describe the different wireless network categories
 - B. Explain the different wireless network business applications
 - C. Identify the benefits and challenges of business mobility

- XVII. Software to Streamline Operations
 - A. Describe the seven phases of the systems development life cycle
 - B. Summarize the different software development methodologies