THOMPSON RIVERS UNIVERSITY

Course Outline

Department of Management
School of Business and Economics

BUSN 6060/1-3
Strategic Management Information Systems (3,0,0)

Calendar Description

Students learn to effectively manage a firm's information and technology assets in order to meet the information needs of the organization. Topics include information systems strategies; the development of information system assets; organizational information infrastructure; databases and data management including decision making support; enterprise resource planning systems; ebusiness; social media use by organizations; information security and risk management; innovating with information technology; and leadership and management of information systems.

Educational Objectives/Outcomes

After completing this course, students should be able to:

1. Communicate the importance of information systems in an organization, and the role they play in the various functional areas of a business.
2. Identify the importance of aligning the information systems strategy with the overall organizational strategy, and ensuring the information technology assets are supporting the business activities and objectives.
3. Design a simple database using standardized techniques that supports key business processes.
4. Recognize the key elements in an organization's information infrastructure, and how they are combined to meet an organization's information needs.
5. Determine the information users' needs for data, information and knowledge, including creating a plan to support decision making within the organization.
6. Propose strategic justification for ERP systems while understanding their advantages and disadvantages.
7. Formulate a strategy to incorporate eBusiness activities with an organization's information systems, at both the infrastructure and process level.
8. Identify how an organization can leverage information systems to improve its innovation activities.
9. Design a plan for the use of emerging technologies, such as social media, in a firm's information system strategy to ensure appropriate use and value.
10. Assess and improve an organization's information security through the use of a risk management framework.
11. Select the appropriate system implementation method based on the current IT environment and business strategy, including creating a people-centric plan to implement new systems.

12. Design the appropriate governance structure for the information systems management area, including leadership and management roles.

Prerequisites

Meets the admission requirements to the MBA

Co-requisites

Texts/Materials

Textbook
Rainer, Cegielski, Splettstoesser-Hogeterp, Sanchez-Rodriguez. Introduction to Information Systems. 2nd Canadian Edition, Wiley, 2011.

Other Resources
Carr, N. G. (2003). IT Doesn't Matter. Harvard Business Review (May - 2003), 41-49., N. G. (2003). IT Doesn't Matter. Harvard Business Review, 81(5), 41-49.

Davenport, T. H., Barth, P., & Bean, R. (2012). How big data is different. MIT Sloan Management Review, 54(1), p. 22-24.

Beath, C., Becerra-Fernadez, I., Ross, J., & Short, J. (2012). Finding value in the information explosion. MIT Sloan Management Review, 53(4), 18-20.

Buchanan, L., & O'Connell, A. (2006). Brief History of Decision Making. Harvard Business Review (January -2006), 32-41.

Swanson, E. B. (2012). The manager's guide to IT innovation waves. Sloan MIT Management Review . Vol. 53 No.2. 75-84.

Dlamini, M. T. (2009). Information security: The moving target. Computers & Security, 28, 189–198.

McAfee, A., & Brynjolfsson, E. (2008). Investing in the IT That Makes a Competitive Difference. Harvard Business Review (July - 2008), 98-107.

Student Evaluation

Campus	
Discussion/participation	10%
Case studies	30%
Midterm	20%
Final exam	40%

Online

Discussions (11)	15%
Case studies (3)	45%
Final exam	40%

Students must pass the final exam with 50% or higher to pass the course.

Course Topics

1. Introduction to Information Systems
   - What is data, information, and knowledge?
   - What is a system?
   - Information systems in organizations
   - Human element in information systems
   - Relationship between information systems and business process management
   - Introduction to the case method

2. Information Systems Strategy
   - Review of strategy in organizations
   - What is an information systems strategy?
   - Relationship between and organizational and information systems strategy
     - Does it matter?
   - Alignment of the is strategy

3. Databases
   - Data processing in organizations
   - Introduction to databases
   - Database models
     - Relational database model
   - Design tools (entity relationship diagrams, data dictionaries, etc)
   - Defining entities and relationships
   - Normalization and referential integrity
   - Data flow and business process diagrams

4. Organizational IT Infrastructures
   - Designing information technology architecture
   - Types of organizational networks
   - Telecommunications
     - Mobile technology
     - Internet
   - Infrastructure in global organizations

5. Data Management and Decision Making

- Innovations in data management
- Moving from data to information to knowledge
- Crowdsourcing data and analysis, lessons for organizations
- Data visualization
- Data warehousing and data mining
- decision making support in organizations
    - Role of information in decision making
    - Why managers make bad decisions?

6. ERP (Enterprise Resource Planning) Systems
    - ERP systems in organizations
        - Move towards ERP systems
        - Advantages and disadvantages over traditional system models
        - Business process integration
    - Implementing ERP systems
        - Challenges to implementation
            - Technical
            - Human (culture)
            - Strategic
    - Impact of ERP systems on the value chain

7. E-business Systems
    - E-business models
        - Business-to-business
        - Business-to-consumer
    - E-marketing and branding
    - Mobile commerce
    - Web usability and the customer interface
    - E-business metrics and information management

8. Innovating with Information Systems
    - Information for innovation and discovery
    - Facilitating innovation work within organizations
    - Intranets and extranets
    - Information from outside the organization
        - Environmental scanning
        - Market information and research
        - Using customer information and knowledge
    - Sharing information and supporting creativity

9. Social Media in Organizations
    - IS strategies and emerging technologies
    - What is social media?
    - Use of social media in society

- Use of social media by organizations
  - trends and innovations
- Model for social media use
- Risks of social media use by employees

10. Information Risk Management and Security
    - Application of risk management practices to information systems
    - Assessing information risks and controls
    - Data security and encryption
      - Encryption
      - Securing digital assets
    - Organizational network and application security
      - Risks associated with networks, telecommunications, and the internet
      - IT security policies
      - Measuring and monitoring it security
      - Incident response
    - Business continuity and disaster recovery planning
      - Physical security
      - Non-technical security risks
      - Social engineering

11. Building Information Systems Technology
    - Systems development lifecycle
    - Effect of design / implementation errors
    - Business analysis / process analysis
    - Requirements building
      - Physical and logical designs
    - Acquiring information systems
      - RFP process
      - Decision criteria and elements
    - System conversions
    - User involvement in the design process
    - Decision to insource or outsource is

12. Information Leadership and Governance
    - Structures of information governance
    - Role of the CIO in organizations
    - Managing the information systems area
    - Leadership and information management

Methods for Prior Learning Assessment and Recognition

Students can apply for PLAR in any course but it cannot be used to meet the program residency requirement.

Attendance Requirements – Include if different from TRU Policy

As per TRU policy.

Special Course Activities – Optional

Use of Technology – Optional
