RYERSON UNIVERSITY

**Ted Rogers School of Information Technology Management
And G. Raymond Chang School of Continuing Education**

(C)ITM 330 – Supply Chain Process Architecture

COURSE OUTLINE FOR 2020-2021

1.0 PREREQUISITE(S)

(C)ITM410

2.0 INSTRUCTOR INFORMATION

- Name:

- Office Phone Number:

- E-mail address:

- Faculty/course web site(s): https://my.ryerson.ca

- Office Location & Consultation hours:

  ➢ Your instructor is available for virtual consultation during scheduled consultation hours. Information on the consultation format is provided in the D2L course shell. If you wish to make an appointment, kindly do so via email to ensure the professor is available.

- E-mail Usage & Limits:

Students are expected to monitor and retrieve messages and information sent through D2L and Ryerson email on a frequent and consistent basis. In accordance with the policy on Ryerson student email accounts (Policy 157), Ryerson requires that any electronic communication by students to Ryerson faculty or staff be sent from their official Ryerson email account. Messages from other accounts may be disregarded.

3.0 CALENDAR COURSE DESCRIPTION

This course deals with enterprise wide integrated systems, and process thinking as a key element in business restructuring. Many key business applications are now implemented using comprehensive and complex enterprise software. The concepts, structure, benefits and problems of enterprise solutions are examined from a business perspective as well as from a technical Information Technology perspective.

4.0 COURSE OBJECTIVES AND LEARNING OUTCOMES

Learning outcomes describe what students are expected to have learned or achieved; as a result, they usually describe what students will be capable of doing, or what evidence will be provided to substantiate learning.

This course introduces (i) various concepts, principles, and strategies in the design, planning, and operation of supply chains; (ii) enterprise resource planning (ERP) systems and their key role in sharing and integrating information across functional areas of the firm; and (iii) how the effective use of ERP software can improve the performance of the business processes that make up the business enterprise. ERPs are typically purchased as customizable software packages that run in client-server environments. Increasingly, the client software is web-based. ERPs vary widely in size and sophistication from packages for medium-sized companies such as Great Plains (now Microsoft Dynamics GP) to large complex packages from vendors such as SAP or Oracle.

Many companies view supply chain management as the core of their business strategy which is the company's plan for being competitive. A supply chain consists of all parties involved, directly or indirectly, in fulfilling a customer request which could entail delivering a product or service. The supply chain includes not only the manufacturer and suppliers, but also transporters, warehouses, retailers, and even customers. Within each organization, such as a manufacturer, the supply chain includes all functions involved in receiving and filling a customer request. These functions include, but are not limited to, new product development, marketing, operations, distribution, finance, and customer service.

Also recently, managers have been thinking in terms of business processes rather than business functions. This helps them to look at their organization from the customer's perspective. In that regard, a supply chain is also an integrated group of business processes and activities with the same goal – providing customer satisfaction. These processes include the procurement of services, materials, and components from suppliers; production of the products and services; and distribution of products to the customer including taking and filling orders. Information and information technology tie these processes together; it is what integrates them into a supply chain.

The course will introduce the basic concepts in supply chain management; focus on the need for integration of information within an organization, and the critical role of ERP software in providing such integration. Since ERP software has evolved from inventory-tracking systems and material requirements planning systems, inventory management and resource planning are specifically discussed within the supply chain context. However, since a supply chain does not consist of a single organization, but includes suppliers, transporters, and retailers as well, issues of integration, information sharing and strategic alliances among these parties are introduced. Throughout the course, constant emphasis will be on building the skills in analyzing and improving business processes in general.

Upon completion of the course, students will be able to:
- describe basic functional areas of a business and how they are related;
- understand and appreciate the business process perspective;
- understand the need for integrated enterprise systems;
- describe ERP business processes and functionality;

- be familiar with main concepts and issues in designing, planning, and operating supply chains
- identify process improvement opportunities; make recommendations for continuous improvement

5.0 TEXTS & OTHER READING MATERIALS

Title: Concepts in Enterprise Resource Planning (4th Edition)
Author: Bret Wagner & Ellen Monk
Publisher: Course Technology
ISBN: 978-1111820398

6.0 TEACHING METHODS

In Fall 2020 this course will be taught will be taught remotely in virtual classrooms. Instruction will take place at scheduled hours, following the approach outlined in D2L Brightspace. You will not be required to attend the Ryerson University campus to complete this course.

This course will incorporate formal lectures including in-class exercises/activities, and a set of homework assignments. The students are expected to have studied the assigned readings prior to attending the classes.

7.0 EVALUATION, ASSESSMENT AND FEEDBACK

The grade for this course is composed of the mark received for each of the following components:

Evaluation Component	Percentage of the Final Grade
Assignments	20%
Mid-term Exam	30%
Final Exam	50%
Total	**100%**

NOTE: Students must achieve a course grade of at least 50% to pass this course.

❖ At least **20%** of student's grade based on individual work will be returned to students <u>prior</u> to the last date to drop a course in <u>good academic standing</u>.

Citation Format for Essays and Term Papers
All essay assignments, term paper and other written works must adhere with APA citation format. Technical errors (spelling, punctuation, proofing, grammar, format, and citations) and/or inappropriate levels of language or composition will result in marks being deducted. You are encouraged to obtain assistance from the Writing Centre (www.ryerson.ca/writingcentre) for help with your written communications as needed.

You can find APA guidelines and academic referencing from the following online resources:

- APA Basic Style Guide

Ryerson Library Citations and Style Guides
- APA Style

8.0 TOPICS – SEQUENCE & SCHEDULE

Session	Topic & Learning Outcomes	Readings	Assignments
1	**Business Functions and Business Processes** 1. Describe the main functional areas of business operations 2. Contrast Business functions and Business Processes 3. Identify the types of input and output data needed and produced by functional areas 4. Explain the importance of integrated information systems in business	Chapter 1	
2	**The Development of Enterprise Resource Planning Systems** 1. Describe the modular characteristics of ERP systems 2. Explain the advantages and drawbacks of ERP systems	Chapter 2	
3	**Marketing Information Systems and the Sales Order Process** 1. Explain the standard business processes for a sales order 2. Explain sales and distributions using an ERP system 3. Explain how integrated data sharing using ERP systems increases efficiency of business operations	Chapter 3	
4	Production and Supply Chain Management Information Systems 1. Explain the production planning process	Chapter 4	Assignment 1
5	2. Describe the material management process in manufacturing production		

	3. Explain how structured processes for supply chain management planning affects efficiency and decision making		
6	**Measuring Supply Chain Performance; Drivers and Metrics, Key Performance Indicators (KPI)** 1. Explain what are the widely used supply chain management (SCM) performance measures 2. Explain the best practices for process measurement and the KPI for SCM	SCM - Performance Measures – Tutorial Point	Assignment 2
7	**Supply Chain Integration and Coordination**; Risk Pooling; The Bullwhip Effect; Relationships and Partnering; Contracts 1. Explain how SCM integrate business processes and add value to customers and other stakeholders 2. Explain how coordination, collaboration and integration among suppliers is necessary to achieve effective SCM	Coordination, Collaboration and Integration for Supply Chain Management By H. S. Moharana et. al	
8	**Accounting in ERP Systems** 1. Explain the problems associated with accounting and financial reporting using unintegrated information systems 2. Describe how regulations such as the Sarbanes-Oxley act has affected accounting information systems 3. Explain how the use of ERPs lead to management and accounting-reporting benefits	Chapter 5	Assignment 3
9	**Midterm**		
10	**Human Resources Processes with ERP** 1. Explain the critical important of the human resource function to business success 2. Describe the key processes management by the human resource department	Chapter 6	

	3. Explain human resource processes can be more effectively managed using integrated information systems		
11	**Process Modeling,** Process Improvement, and ERP Implementation; Lean Systems 1. Develop basic models of business processes using flowcharts 2. Analyze business process models and provide alternatives for process improvements 3. Describe the key elements/tools underlying the management ERP implementations	Chapter 7	Assignment 4
12	**ERP and Electronic Commerce** 1. Describe the elements underlying the software infrastructure underlying E-Commerce and ERP systems 2. Explain how ERP can be instrumental in a company's successfully running its E-Commerce operations	Chapter 8	

9.0 VARIATIONS WITHIN A COURSE

All sections of a course (Day and CE sections) will follow the same course outline and will use the same course delivery methods, methods of evaluation, and grading schemes. Any deviations will be posted on D2L Brightspace once approved by the course coordinator.

This course will incorporate formal lectures including in-class exercises/activities, and a set of homework assignments. The students are expected to have studied the assigned readings prior to attending the classes.

10.0   OTHER COURSE, DEPARTMENTAL, AND UNIVERSITY POLICIES

For more information regarding course management and departmental policies, please consult the Course Outline Appendix which is posted on the Ted Rogers School of Information Technology Management website.

NOTE: Students must adhere to all relevant university policies found in their online course shell in D2L and /or on the following URL: senate-course-outline-policies.

The appendix covers the following topics:

Attendance & Class Participation

Email Account

Request for Academic Consideration

Examinations & Tests

Late Assignments

Standard of Written Work

Academic Grading Policy

Academic Integrity

Student Rights

Important Resources Available at Ryerson

- Academic Accommodation Support: Ryerson University acknowledges that students have diverse learning styles and a variety of academic needs. If you have a diagnosed disability that impacts your academic experience, connect with Academic Accommodation Support (AAS). Visit the AAS website or contact aasadmin@ryerson.ca for more information. Note: All communication with AAS is voluntary and confidential, and will not appear on your transcript.
- The Library provides research workshops and individual assistance. If the University is open, there is a Research Help desk on the second floor of the library, or go to Workshops.

- Student Learning Support offers group-based and individual help with writing, math, study skills, and transition support, as well as resources and checklists to support students as online learners.

- You can submit an Academic Consideration Request when an extenuating circumstance has occurred that has significantly impacted your ability to fulfill an academic requirement.

- Ryerson COVID-19 Information and Updates for Students summarizes the variety of resources available to students during the pandemic.

- Familiarize yourself with the tools you will need to use for remote learning. The Continuity of Learning Guide for students includes guides to completing quizzes or exams in D2L or Respondus, using D2L Brightspace, joining online meetings or lectures, and collaborating with the Google Suite.