

<b>DSIT 7001</b>	<b>IT Applications in Supply Chain Management</b>	L	T	P	C
<b>Version 1.0</b>		3	0	0	3
<b>Pre-requisites/Exposure</b>	Basic understanding of computers				
<b>Co-requisites</b>	--				

### Course Objectives

1. Understand the role of IT and IS in operational, tactical and strategic decision making.
2. Understand the business functions and integration of IT and IS in business processes in various functions and LSCM sector
3. Understand the various IT applications in various functions and LSCM sector

### Course Outcomes

On completion of this course, the students will be able to

- CO1. The student would be able analyse the domestic and global impact of IT and IS on individuals, organisations and society.
- CO2. The student would be able to analyse the various IT infrastructure and applications required for an organisation
- CO3. The student would be able to compare the various latest IT applications available for various sectors

### Catalog Description

This course helps students see the connection between information systems (IS) and business performance. The use of information and communication technologies (ICT) by individuals and organizations dominates the business world. There is a fundamental change going on in the way that organizations run businesses and interact with each other. New types of infrastructure and applications are developed and utilized.

The aim of the course is to enable students to assess the opportunities and problems that managers in a wide range of organizations face as they attempt to use these IT applications to add value to their businesses. It also aims to help students understand transformational changes within and across industries. These changes have strategic implications for many businesses.

### Course Content

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#### **Module 1: Organizations, Management, and the Networked**

- 1.1 The Role of Information Systems in Business Today
- 1.2 Perspectives on Information Systems
- 1.3 Contemporary Approaches to Information Systems

3 hours

1.4 Understanding Ethical and Social Issues Related to Information Systems	
2.1 Business Processes and Information Systems	4.5 Hours
2.2 Types of Information Systems	
2.3 Systems That Span the Enterprise	
2.4 Case Study	
3. 1 Organizations and Information Systems	4.5 Hours
3.2 How Information Systems Impact Organizations and Business Firms	
3.3 Using Information Systems to Achieve Competitive Advantage	

**Module 2: Information Technology Infrastructure**

4.1 IT Infrastructure	4.5 Hours
4.2 Infrastructure Components	
4.3 Latest Trends, Salesforce.com: Cloud Services Go Mainstream	
5.1 Foundations of Business Intelligence: Databases and Information Management	6 Hours
5.2 The Database Approach to Data Management	
5.3 Using Databases to Improve Business Performance and Decision Making	
6.1 Securing Information Systems	3 Hours
6.2 Technologies and Tools for Protecting Information Resources	

**Module 3: Key System Applications for the Digital Age**

7.1 Enterprise Systems	4.5 Hours
7.2 SCM, CRM	
7.3 ERP	
7.4 Enterprise Applications: New Opportunities and Challenges	
8.1 E-Commerce: Digital Markets, Digital Goods	1.5 Hours
8.2 E-Commerce: Business And Technology	

**Module 4: Applications in Power Sector and Urban Infrastructure Development**

9.1 Applications in Power Sector and UID	4.5 Hours
9.2 Smart Cities	
9.3 Smart Grids	
9.4 IoT, IIOT, Big Data	

**Text Books**

1. Waman S Jawadekar(2011); Management Information Systems: 3rd Edition
2. Kenneth C. Laudon , Jane P. Laudon(2011); Management Information Systems: Managing the Digital Firm, 13th Edition
3. Paige Baltzan , Amy Phillips(2016); Business Driven Information Systems 4th Edition
4. R. Kelly, Efraim Turban(2008); Introduction to Information Systems: Enabling and Transforming Business 2nd Edition

**Modes of Evaluation: Quiz/Assignment/ presentation/ extempore/ Written Examination Examination Scheme:**

Description	Weight age	Schedule
Internal Examination	50%	Detailed Below
End term Exam	50%	Academic Calendar

- i) First Component: : QUIZ Online 4th week from the start of the Course. 10% weightage.
- ii) Second Component : Group Project : Week before end term 50% Weightage (Project Report -30% + Presentation 20%)
- iii) Third Component : Case study Analysis and Presentation: 40 % (30% Case Analysis and 10% Presentation)

**Relationship between the Course Outcomes (COs) and Program Outcomes (POs)**

Mapping between COs and POs		
	COURSE OUTCOMES ( COs )	POs
CO 1	The student would be able analyse the domestic and global impact of IT and IS on individuals, organisations and society	PO 1,2, 3,4,7,8,9,10, 11,13, 14
CO 2	The student would be able to analyse the various IT infrastructure and applications required for an organisation	PO 1,2, 3, 7,8,9,10, 11,14
CO 3	The student would be able to compare the various latest IT applications available for various sectors	PO 1,2, 3, 8,9,10, 11, 13,14

### Program Outcome / Course Outcome mapping

<b>Course Outcomes</b>	<b>CO 1</b>	<b>CO 2</b>	<b>CO 3</b>
<b>PO 1</b>	3	3	3
<b>PO 2</b>	3	3	3
<b>PO 3</b>	3	3	3
<b>PO 4</b>	3	1	1
<b>PO 5</b>	2	2	1
<b>PO 6</b>	1	1	1
<b>PO 7</b>	3	3	1
<b>PO 8</b>	3	3	3
<b>PSO 9</b>	3	3	3
<b>PSO 10</b>	3	3	3
<b>PSO 11</b>	3	3	3
<b>PSO 12</b>	1	1	1
<b>PSO 13</b>	3	1	3
<b>PSO 14</b>	3	3	3

Course Code	Course Title	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PSO 9	PSO 10	PSO 11	PS12	PSO 13	PSO 14
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		Students will be able to develop and evaluate alternate managerial decisions and identify optimal solutions	Students will demonstrate effective application capabilities of their conceptual understanding to the real world business situations	Students will be able to exhibit effective decision making skills, employing analytical and critical thinking ability	Students will demonstrate effective oral and written communication skills in the professional context	Students will be able to work effectively in teams and demonstrate team building capabilities	Students will exhibit leadership and networking skills while handling business situations	Students will demonstrate sensitivity towards ethical and moral issues and have ability to address them in the course of business	Students will demonstrate employability traits in line with the changing dynamics of the industry	Students will demonstrate strong conceptual knowledge in the functional area of management as well as LSCM domain	Students will demonstrate effective understanding of relevant functional areas of management and their application in LSCM	Students will demonstrate analytical skills in identification and resolution of business problems pertaining to LSCM & general management	Students will exhibit the ability to integrate functional areas of management with domain perspective for the purpose of planning, implementation & control of LSCM	Students will have global perspective towards business situations in the area of LSCM	Students will exhibit deployable skills pertinent to the LSCM sector

- 1 – Weakly mapped
- 2 – Moderately mapped
- 3 – Strongly mapped



<b>SECTION B (Attempt any all Questions)</b>			
1.	Mention the classification of Information Systems	[5]	CO2
2.	Lower down the pyramid, the more structured the decision, justify.	[5]	CO3
3.	Mention the various types of cloud.	[5]	CO3
4.	Mention the different kinds of CRM.	[5]	CO2
<b>SECTION C</b>			
1.	Deere & Company (brand name John Deere) is well known for the manufacture and supply of machinery used in agriculture, construction, and forestry, as well as diesel engines and lawn care equipment. In 2014, Deere & Company was listed 80th in the Fortune 500 America's ranking and in 2013 was 307th in the Fortune Global 500 ranking. Deere and company has a complex product range, which includes a mix of heavy machinery for the consumer market and industrial equipment which is made to order. Retail activity is extremely seasonal, with the majority of sales made between March and July. The company was replenishing dealers inventory on a weekly basis, by direct shipment and cross-docking operations, from source warehouses located near Deere & Company's manufacturing facilities. This operation was proving too costly and too slow, so the company embarked on an initiative to achieve a 10% supply chain cost reduction over a four-year period. Suggest appropriate application and justify.	[15]	CO1,C O2,CO 3
2.	<b>The Challenge</b> :Consumer demand for electricity has never been greater. We rely on it to power our computers, as well as the energy-hungry data centres and cooling systems that support our digital economy. We want it to be clean, for the health of our citizens and for our environment. We expect it to be reliable, so that when we plug in our electric cars, light up our office towers, or recharge our cell phones, it's readily available. We want it all, and yet North American electricity grids were never designed to satisfy so many demands all at once. Suggest the solution and mention the important aspects to resolve the challenge.	[15]	CO1,C O2,CO 3
<b>SECTION D Attempt any one</b>			
	<b>Answer the following question of the case study.</b> Answer in points. <b>(10+10+5+5=30 Marks)</b> 1. What is BI and how can it help Canadian Tire? In the case there are 10 common challenges of BI implementations, which of these would you rate as most important for Eubanks and Wnek at CTC, and why? How would you address them? 2. To what degree do you think CTC/CTR's organizational structure influences the business intelligence initiative? Specifically, what challenges will the shadow IT groups raise for the implementation of the BI strategy? Is this important? Why or why not? 3. Compare the exhibits that depict the current versus the future desired BI infrastructure. What challenges exist for the implementation of the BI initiative? 4. Given your analysis, develop an implementation plan to project completion. This plan must lay out the priorities and address the major challenges you have identified.	[30]	CO1,C O2,CO 3