

Course Title	:	Electronic Business: Supply Chain Applications
Course Code	:	CDS250/CDS2250
No. of Credits/Term	:	3
Mode of Tuition	:	Sectional Approach
Class Contact Hours	:	3 hours per week
Category in Major Prog.	:	Stream Required – Logistics and Decision Science Stream
Prerequisite	:	Nil

### **Brief Course Description**

This course studies the way electronic business (e-business) changes the flow of goods and services in the supply chain and how it creates threats and opportunities for both the traditional and new firms. Furthermore, based on the basic models of Supply Chain Management (SCM), it uses computer simulation program, computer based exercises, and case analyses pedagogy to build an integrated view of SCM, planning, and change management. The applications cover logistics, procurement and operations strategy, and are studied through case studies and computer simulations in consumer and industrial settings.

### **Aims**

This course is designed to develop a linkage between traditional businesses and electronic businesses in supply chain management.

### **Learning Outcomes**

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

1. Understand the fundamentals of electronic business and its applications in supply chain management.
2. Understand the various supply chain situations in consumer and business settings, and also to apply appropriate supply chain problem solving approaches, decision support tools, advanced planning and scheduling, and analysis methods.
3. Design and operate their own supply chain in a competitive environment after

experimenting with the computer simulations of various supply chain situations.

### **Measurement of Learning Outcomes**

1. Case studies will be conducted to enhance and test students' understanding of the course materials, so that they need to prepare before-hand, and actively participate in case discussions and hand-in study reports after the studies.
2. Computer simulation and other analytical tools will be used to let students experience the various supply chain scenarios, and they are required to submit reports at different stages of the experiments conducted.
3. A mid-term test and final exam will be used to examine students' understanding of course materials in paper form.

### **Indicative Content**

- Foundations of Electronic Business: Definitions and Content of e-Business; Benefits and Limitations; the Driving Forces of e-Business; Impact of e-Business; types of e-Businesses; various e-Business models.
- Technology infrastructure: Information networks, enterprise resource planning, and extension systems, advanced planning and scheduling, intranet, extranet, e-payment, and security.
- e-Applications in SCM: Inventory management, transportation management, warehousing, packaging and materials handling, organization and relationship management, performance and financial assessment.

### **Simulation Tool**

The Computer Simulation Tool (such as Michigan State University Logistics Simulation – LOGA VIII) replicates an interactive competitive environment of a four-firm industry. Throughout the simulation, the firms compete for market share and profit, but they need to design and operate a fully integrated logistics system where managers are responsible for procurement, production, warehousing, delivery, and marketing within the demand and competitive constraints of the market. Teams will be challenged to manage both the complexities of a fully integrated supply chain and the individual tasks that make up this supply chain.

### **Teaching Method**

Course materials will be delivered mainly through lectures in sectional approach, combined with seminars of the arranged case studies. Lab sessions will also be conducted to carry out the simulation sessions of various processes of a supply chain management.

### **Assessment**

Continuous Assessment	70%
Examination	30%
<b>Total</b>	<b>100%</b>

### **Required/Essential Readings**

Handfield, Robert B. and Nichols, Jr., Ernest, L. *Supply Chain Redesign: Transforming Supply Chains into Integrated Value Systems*. Prentice-Hall, 2002.

### **Recommended/Supplementary Readings**

Turban, E., D. King, J. Lee, and D. Viehland, *Electronic Commerce: A Managerial Perspective*, Prentice-Hall, 3<sup>rd</sup> Ed., 2004.

Bozarth, Cecil and Handfield, Robert. *Introduction to Operations and Supply Chain Management*, Prentice-Hall, 2006.

Li & Fung Research Centre, *Supply Chain Management: The Practical Experience of Li & Fung*, Hong Kong: Joint Publishing, 2003 (in Chinese).