



Course Title:	Supply Chain Design
Course Code:	SM476
Prerequisites:	Operations Management
Department:	Operations and Supply Chain

HSM Vision

HSM envisions its success in the sustainable contribution that it will make to the industry, academia and research in public and private sector. HSM will lead by providing professionally competent and ethically conscious human resources engaged in the global and local context to foster socio-economic growth and sustainability for the society. HSM envisages having faculty with high research potential and a deep desire for cutting edge research including collaboration with national and international partners.

HSM Mission

Being a research-oriented and student-centric business school, we emphasize research publications in impact journals as well as state-of -the-art learning methodologies. We will prepare our students to become the future ethical business leaders and the guiding post for the society, while equipping them with the knowledge and skills required by world-class professionals. We will be the leading choice for organizations seeking highly talented human resource. HSM will foster internationalization with key stakeholders and actively work to exchange best practices with business schools across Pakistan through collaborations, workshops, conferences and other means.

CAPSULE STATEMENT

The need of becoming a specialist in every field is getting stronger day by day. Traditional qualifications have at least one thing common i.e. they create silos among various processes and the strategic focus becomes quite narrow. To make strategic decisions in such a way that alignment throughout the processes within the firm and enterprise wide, corporate policies or

visions & individual objectives of the sub-departments are not affected, the significance of emerging and vast field of supply chain management has risen.

The course 'Supply Chain Design' focuses on design aspects of the supply chain, how many network nodes are required in distribution networks, what about the role of distributor and wholesaler, can we eliminate the middle man? These are the questions demand answers while designing the supply chains. These changes have been driven by dramatic improvements in:

1. Information technology,
2. The growth and increasing accessibility of global markets, and
3. The necessity to adapt to more sophisticated & quality conscious consumers.

This course explains the WHAT, WHY and HOW of supply chain design. This will facilitate understanding of the features of supply chain management—and its conceptual and operational boundaries. In this course we will view the supply chain from the point of view of top line managers. Our goal in this course is to understand how an effective and efficient supply chain can be designed and how a good supply chain creates bottom line impact.

LEARNING OBJECTIVES

The purpose of the course is to develop the ability in students to:

- Successfully manage today's complex supply chain environment.
- Understand traditional business functions & the linkage to customers & suppliers.
- Understand not only the processes that drive their own organization, but also those that direct suppliers' and customers' businesses.

LEARNING METHODOLOGY

Using a mix of project, famous articles on supply chain management & practical examples of various companies using the state of the art concept at corporate level, the course will emphasize the concepts underlying effective supply chain management, providing a flavor for the challenges facing supply chain managers.

Following tools will be used to facilitate the learning process for this course:

Lectures	Project	Tests / Quiz
Class participation	Assignments/Presentations	Role Plays

ASSESSMENT CRITERIA & WEIGHTAGE

Quiz / tests	15%
Assignments	15 %
Project	10%
Class participation	05%
Mid-Term Test	20%
Final Exam	35%

REQUIRED TEXT BOOK

- a) Business Logistics & Supply chain management by Ronald H. Ballou, (5th Ed.) Prentice Hall

OTHER RECOMMENDED RESOURCES

- a) *Supply Chain Management By Sunil Chopra, Peter Meindal & D.V Karla*
- b) *Business Logistics/Supply Chain Management Ronald H. Ballou & Samir K.5th Edition
Pearson*
- c) *Supply Chain Management: from vision to implementation by Stanley E. Fawcett, Lisa
M. Ellram & Jeffrey A. Ogden (1st Ed.), Prentice Hall*

SUPPLY CHAIN DESIGN

1	Introduction of supply chain management, value chains, bullwhip effect	Guided Material
2	Strategic, Tactical and Operational Decision Making, Selecting the Proper Channel Strategy, Seven Principles of Supply Chain, Framework of Structuring Drivers, ABC Analysis, Customer Service Elements, Customer Service Complaints	Chap 2, Chap 3, & Chap 4
3	Supply Chain Game Session / Case Study–	
4	Order Cycle Time, Order Processing Priorities, Order Condition Standards, Order Constraints, System thinking, Systems Analysis, Determining Optimum Service Levels, Service Variability, Loss Function, Service as a constant.	Chap 4
5	The new product development process, Mitigating risk in NPD, Role of finance in NPD, Integral product design.	Handouts
6	Order fulfillment process, Typical elements of Order Processing, Factors affecting order Processing Time, Ware House Management System, Optimizing order fulfillment process	Chap 5
7	Logistical Elements in Supply Chains, Warehousing and Cross Docking Operations	Chap 9
8	Supply Chain Dynamics and Analysis, Supply Chain Dynamics and Optimization	Handouts
9	MID TERM EXAMINATION	
10	Designing supply chain networks, designing the distribution network in a supply chain	Chap 4 S&C
11	Network Optimization Models, Capacitated Plant Location Model	Chap 5 S&C
12	Design of Purchasing System	Chap 10
13	Supply Chain Mapping	Guided Material
14	Reverse Supply Chains and Green Supply Chains	Guided Material
15	Storage and Handling Decision	Chap 11

CLASS POLICY

PARTICIPATION

1. Students should come prepared by going through last sessions & participate fully in the class.
2. The participation may be voluntary, or a student may be called upon to respond to questions.

ATTENDANCE

1. Students are expected to attend the classes regularly.
2. Any student who fails to attend a session due to any reason will be marked ABSENT.
3. In case of high no. of absents i.e. 2 or 3 the student's class participation would be affected.
4. In case of **more than 3** ABSENTS, student would be dropped from the course.

PROJECT

1. The format of Project assessment would be a formal power point presentation in class by every member of the group at the 13th session of the semester.
2. Students would be graded on their individual as well as their group performances.
3. A written report of the Project analysis would also be submitted by the students.
4. Objectives of the project are as follows:
 - a) To analyze the end-to-end supply chain taking a product or service as a reference for any industrial sector, following the generalized supply chain model by Bowersox.
 - b) To identify the downstream and upstream activities along with the explanation of various flows throughout the supply chain i.e. material flow, information flow& financial flows.
 - c) To outline and draw the supply chain process map of the respective firm using any supply chain process mapping tool, highlighting processes and value in terms of time throughout the supply chain.
 - d) To identify the gaps in terms of supply chain problems and finally submitting comprehensive recommendations based on action plans.
 - e) To draw the supply chain organization chart of the company.

QUIZZES

1. From a total of (n) quizzes, best (n -1) quizzes may be considered for the final grade.
2. No make-up quizzes will be given.

USE OF MOBILE PHONES AND OTHER ELECTRONIC DEVICES

1. Use of mobile phones and any other electronic device (except calculators) is prohibited during the class time and examination time.

2. All mobile phones should be turned-off and secured in pockets or bags during the class time and examination time.

USE OF UNFAIR MEANS

COPYING or SHARING in graded instruments (e.g. assignments, quizzes, cases, tests etc), or using any other unfair means, is not permissible. Any individual or team failing to comply will be reported to the SBE Disciplinary Committee.