SUPPLY CHAIN MANAGEMENT

BTU | BUSINESS & TECHNOLOGY UNIVERSITY

AI SYLLABUS

Supply Chain Management

Course Description:

This course provides students with an in-depth understanding of the principles and practices of Supply Chain Management (SCM). SCM involves the coordination and management of all activities involved in the sourcing, procurement, production, and delivery of goods and services to customers. The course will cover a range of topics including inventory management, demand forecasting, transportation and logistics, and global sourcing.

Students will learn about the importance of SCM in today's business environment, as well as the various components of a supply chain and their interrelationships. The course will explore the various methods and techniques used in SCM, including inventory management models, demand forecasting methods, transportation and logistics networks, and global sourcing strategies.

Students will gain practical knowledge of SCM practices and learn how to evaluate and optimize supply chain operations. The course will cover how to develop effective strategies to manage inventory levels, forecast demand accurately, optimize transportation and logistics networks, and select and manage global suppliers.

Additionally, the course will cover the role of technology in SCM, including the use of information systems, e-commerce, and blockchain technology in supply chain integration and optimization. Throughout the course, students will be encouraged to think critically and analyze real-world case studies to better understand the challenges and emerging trends in SCM.

By the end of the course, students will have developed a strong foundation in the principles and practices of SCM, and will be equipped with the skills and knowledge necessary to become effective supply chain professionals in a variety of organizational contexts.

Course Goals:

- Understand the key concepts and principles of Supply Chain Management
- Identify the major components of a supply chain and their interrelationships
- Analyze and evaluate the performance of a supply chain
- Develop strategies to optimize supply chain operations
- Understand the role of technology in Supply Chain Management
- Gain an understanding of the challenges and emerging trends in Supply Chain Management

Course Schedule:

Week 1: Introduction to Supply Chain Management

1. Overview of Supply Chain Management
2. Historical perspectives on Supply Chain Management
3. Importance of Supply Chain Management
4. Major components of a supply chain

Week 2: Inventory Management

1. Inventory management models and techniques
2. Safety stock and reorder point
3. Economic order quantity (EOQ)
4. Just-in-time (JIT) inventory management

Week 3: Demand Forecasting

1. Forecasting methods and techniques
2. Time-series forecasting
3. Regression analysis
4. Collaborative planning, forecasting, and replenishment (CPFR)

Week 4: Transportation and Logistics

1. Transportation modes and networks
2. Freight management and optimization
3. Warehousing and distribution management
4. Reverse logistics

Week 5: Global Sourcing

1. Sourcing strategies and considerations
2. Global supplier selection and evaluation
3. Managing risks in global sourcing
4. Cultural and ethical considerations in global sourcing

Week 6: Technology and Supply Chain Management

1. Role of technology in Supply Chain Management
2. Information systems and supply chain integration
3. E-commerce and supply chain management
4. Blockchain and supply chain management

Grading and Assessment:

Attendance and participation (10%)
Individual case analysis (20%)
Group project on supply chain optimization (20%)
In-class presentations and discussions (20%)
Mid-term exam (15%)
Final exam (15%)

Required Readings:

1. Supply Chain Management: Strategy, Planning, and Operation by Sunil Chopra and Peter Meindl
2. The Handbook of Logistics and Distribution Management: Understanding the Supply Chain by Alan Rushton, Phil Croucher, and Peter Baker
3. Global Supply Chain Management: Leveraging Processes, Measurements, and Tools for Strategic Corporate Advantage by John T. Mentzer, Matthew B. Myers, and Theodore P. Stank
4. Supply Chain Management: A Logistics Perspective by John J. Coyle, Edward J. Bardi, and C. John Langley Jr.
5. Operations and Supply Chain Management: The Core by F. Robert Jacobs and Richard B. Chase
6. Global Logistics and Supply Chain Management by John Mangan, Chandra Lalwani, and Tim Butcher
7. Supply Chain Risk Management: Vulnerability and Resilience in Logistics by Donald Waters
8. The Lean Supply Chain: Managing the Challenge at Tesco by Barry Evans

Course Policies:

- Attendance is mandatory and will be factored into the final grade
- Late submissions will be penalized
- Plagiarism will not be tolerated and will result in a failing grade
- Classroom discussions should be respectful and constructive