

Supply Chain Management (SCM)

SCM 320. Integrated Supply Chain Management. 3 Credits.

This introductory course provides an overview of supply chain management (SCM) principles, processes, and strategies. It explores end-to-end supply chain processes, emphasizing the integration of procurement, production, distribution, and logistics. Students will analyze how information, materials, and finances flow across supply chain networks. Key topics include inventory management, demand forecasting, supplier relationships, material management, transportation, global supply chains, customer service, and the role of technology and sustainability in supply chain optimization. Prereq or Coreq: College of Business major, minor or certificate and a 2.50 minimum NDSU grade point average.

SCM 325. Managing Inventory and Materials. 3 Credits.

Managing inventory and materials is the cornerstone of supply chain management. The goal of this course is two-fold: (1) identify problems and challenges in managing inventory and materials, and (2) introduce main stream quantitative methods to solve these problems and challenges. Prereq: SCM 320 and restricted to College of Business major or minor and a 2.50 minimum NDSU grade point average.

SCM 330. Supply Chain Analysis and Analytics. 3 Credits.

Introduction to quantitative tools for compiling, presenting, and analyzing, numerical data to make inferences and decisions in the face of uncertainty. In addition, an understanding and application of analytics to large data. Prereq: TL 116 or CSCI 114. Prereq or Coreq: 2.50 minimum NDSU grade point average.

SCM 397. Fe/Coop Ed/Internship. 1-4 Credits.

SCM 425. Procurement & Sourcing. 3 Credits.

This course will explain the strategic importance of procurement and sourcing on an organization's successful supply chain operations. Also, this course emphasizes the impact of purchasing on the competitive success and profitability of the firm. Prereq: SCM 320 and restricted to College of Business major or minor and a 2.50 minimum NDSU grade point average. {Also offered for graduate credit - see SCM 625.}.

SCM 435. Transportation & Distribution. 3 Credits.

This course provides an overview of the management of transportation and warehouse's core fundamentals within supply chain operations. In addition, it focuses on highlighting different modes of transportation and transportation technologies required for managing the national and international supply chain. Prereq: SCM 320 and restricted to College of Business major or minor and a 2.50 minimum NDSU grade point average.

SCM 450. Supplier & Customer Relations. 3 Credits.

This course provides students with a knowledge of the principles and best practices for managing and collaborating with suitable suppliers for business. Also, the course will focus on highlighting the importance of maintaining appropriate customer relationships resulting in unsolicited testimonials and relationship annuities. Students learn to integrate vendors management, business processing, and customer relationship management with a decisive strategic plan. Prereq or Coreq: Restricted to College of Business major or minor and a 2.50 minimum NDSU grade point average.

SCM 455. Supply Chain Technology Enablers. 3 Credits.

This course will focus on highlighting the role of emerging technologies in supply chain management. In addition, the student will be able to understand how the organization integrates its supply chain operations, procurement, and enterprise resource planning (ERP) with the usage of different technologies to optimize its efficiency and lowering operational costs. Prereq or Coreq: Restricted to a 2.50 minimum NDSU grade point average.

SCM 457. Scheduling in Supply Chain Management. 3 Credits.

This course will help students understand the various concepts used in planning and scheduling within supply chain operations. In addition, this will also provide insights into how the organization can incorporate and optimize its supplies, procurement, production cycle, warehouse management, and distribution efficiency by scheduling, along with cost-saving opportunities with efficient scheduling. Prereq: SCM 320 and restricted to College of Business major or minor and a 2.50 minimum NDSU grade point average.

SCM 460. Production & Operations Management. 3 Credits.

Study and application of concepts and managerial techniques for manufacturing and service operations. Includes production technology, facility location/layout, inventory management, MRP, just-in-time manufacturing, and total quality management. Prereq: STAT 330 and MATH 144 or MATH 146. Restricted to College of Business major or minor and a 2.50 minimum NDSU grade point average.

SCM 461. Financing the Supply Chain. 3 Credits.

The flow of financing in the supply chain is fragmented, and sensitive due to frequent fluctuations in micro and macroeconomics indicators. Therefore, this course will highlight the need and importance of financial management within supply chain operations. In addition, this course will evaluate and highlights key enablers in financing the supply chain operations and recognize some of the factors impacting their future. Prereq: SCM 320. Prereq or Coreq: Restricted to College of Business major or minor and a 2.50 minimum NDSU grade point average. Cross-listed with FIN 461. Dual-listing: SCM 661 FIN 661.

SCM 463. Business Location Analytics. 3 Credits.

In the presence of big data, AI, and the digital, global economy, businesses must navigate complex decisions about where to source, operate, and market to grow their customer base and create value for their businesses. Business Location Analytics explores how location intelligence informs these decisions by integrating spatial data into business development, marketing, and operations. Using tools like ArcGIS Business Analyst and real-world case study examples, students will learn to design, deploy, and manage location analytics solutions from both strategic and operational perspectives. This course will provide students with the knowledge and skills to harness location analytics as a critical factor for achieving business success and resilience in a competitive landscape. Prereq or Coreq: A cumulative GPA of at least 2.50.

SCM 465. International Supply Chain Management. 3 Credits.

This course provides deep insights into how global trade can be facilitated through enhanced supply chain management. In addition, the course will evaluate the strategic relationships necessary for supply chain operations and the tactical activities of logistics, purchasing, and operations from a global perspective. Prereq: SCM 320 and restricted to College of Business major or minor and a 2.50 minimum NDSU grade point average.

SCM 494. Individual Study. 1-5 Credits.**SCM 625. Procurement & Sourcing. 3 Credits.**

This course will explain the strategic importance of procurement and sourcing on an organization's successful supply chain operations. Also, this course emphasizes the impact of purchasing on the competitive success and profitability of the firm. {Also offered for undergraduate credit - see SCM 425.}.

SCM 661. Financing the Supply Chain. 3 Credits.

The flow of financing in the supply chain is fragmented, and sensitive due to frequent fluctuations in micro and macroeconomics indicators. Therefore, this course will highlight the need and importance of financial management within supply chain operations. In addition, this course will evaluate and highlights key enablers in financing the supply chain operations and recognize some of the factors impacting their future. Cross-listed with FIN 661. Dual-listing: SCM 461.