

Supply Chain Management (SCHM)

SCHM 1990. Elective. (1-4 Hours)

Offers elective credit for courses taken at other academic institutions. May be repeated without limit.

SCHM 2301. Supply Chain and Operations Management. (4 Hours)

Focuses on the integrative management of business activities intrinsic to the smooth flow of goods or services, information, and financial transactions across firms from raw materials to the end customer. This collaborative approach creates competitive advantages for all members of a supply chain. Emphasizes the responsibilities of managers regarding decisions concerning the design, operation, and control of supply chains and operations. Considers customers, globalization, corporate strategy, resources, sustainability, ethics, and diversity. Topics covered include customer-centric management; supply chain and operations strategies; process structure and control; and supply, inventory, and quality management. Emphasizes the key role of information technology, logistics network design, supply chain relationships, and process evolution.

SCHM 2990. Elective. (1-4 Hours)

Offers elective credit for courses taken at other academic institutions. May be repeated without limit.

SCHM 3301. Global Supply Chain Strategy. (4 Hours)

Focuses on the managerial activities of those involved in supply chain management operations and planning for companies doing international commerce. Analyzes contemporary issues that affect the design of international supply chain systems, including sourcing, logistics, transactions, risk, sustainability, and ethical considerations. Examines the current status and future prospects of the modes of international transportation as well as international trade and development issues, not only from the corporate perspective but also in terms of government policy.

Prerequisite(s): SCHM 2301 with a minimum grade of D- or IE 4525 with a minimum grade of D-

SCHM 3302. Supply Chain Management for Engineers. (4 Hours)

Focuses on the qualitative frameworks, processes, and activities involved in the planning, transformation, and delivery of goods and services in a context uniquely geared to engineering students, who likely have already studied many of the key quantitative aspects of modern supply chain management. Offers students an opportunity to obtain foundational knowledge in key areas such as project management, supplier selection, legal aspects of supply chain management, supplier relational management, global sourcing, and logistics.

SCHM 3303. Supply Chain Risk Management. (4 Hours)

Explores the critical realm of mitigating supply chain disruptions within the dynamic landscape of contemporary business. Examines the intricacies of global supply chains, emphasizing real-world scenarios and exploring proactive measures such as diversification, technology integration, and strategic partnerships. Discusses challenges ranging from geopolitical uncertainties to natural disasters. Analyzes risk identification, assessment, and response strategies. Offers students an opportunity to gain practical insights into crisis communication, scenario planning, and the implementation of robust risk mitigation frameworks.

SCHM 3305. Sourcing, Procurement, and Negotiation. (4 Hours)

Addresses the strategic and operational role of sourcing and procurement and its impact on the supply chain as it relates to the entire organization. The selection, contracting, development and monitoring/managing of the right supplier in the right location is more often a source of competitive advantage and a major contributor to a company's bottom line. The course focuses on a variety of aspects of this function—strategy development, organization, procedures, supplier selection, negotiations, buyer-supplier relationship management, quantity, quality, timeliness, and cost/price considerations for the purchase of goods and services.

Prerequisite(s): SCHM 2301 with a minimum grade of D- or IE 4525 with a minimum grade of D-

SCHM 3308. Supply Chain Analytics and Emerging Technologies. (4 Hours)

Examines state-of-the-art in analytics capabilities and how they drive supply chains, from marketing to sourcing. Examines how organizations use analytics to meet their strategic objectives, provide value to the business, and make decisions. Offers students an opportunity to develop strategic supply chain decision-making skills using the latest analytics capabilities as an enabler. Focuses heavily on industry best practices, including looking at some of the leading companies.

Prerequisite(s): SCHM 3301 with a minimum grade of D- or SCHM 3305 with a minimum grade of D- or SCHM 3310 with a minimum grade of D-

SCHM 3310. Logistics and Transportation Management. (4 Hours)

Examines the logistics and transportation operations, including the structure, challenges, and potential of the major modes of domestic transportation. Focuses on the interaction between logistics providers and shippers in the marketplace. Explores the major dynamics of the logistics marketplace and their impact on supply chain management. Seeks to provide students with a managerial perspective on controlling what is typically the most expensive component of supply chain management, transportation expenditures.

Prerequisite(s): SCHM 2301 with a minimum grade of D- or IE 4525 with a minimum grade of D-

SCHM 3315. Managing Healthcare Operations and Supply Chain. (4 Hours)

Focuses on concepts and topics related to the design and management of healthcare sector operations and supply chain. Offers students an opportunity to learn about practices and strategies for effective management of operations and supply chain in healthcare organizations, including management of inventory, operations processes, capacity, procurement, logistics, IT systems, and attendant relationships, as well as various optimization tools and techniques.

SCHM 3320. Forecasting and Sales and Operations Planning. (4 Hours)

Offers a practical introduction to demand (sales) planning and forecasting for business students. Focuses on the organizational processes in managing demand as well as generating a forecast, regression analysis, exponential smoothing, time-series analysis, judgmental forecasting methods, and evaluation of forecast quality. Uses real-life data and various software packages to illustrate basic concepts.

Prerequisite(s): SCHM 3301 with a minimum grade of D- or SCHM 3305 with a minimum grade of D- or SCHM 3310 with a minimum grade of D-

Attribute(s): NUpath Analyzing/Using Data

SCHM 3330. Sustainable Supply Chain Management. (4 Hours)

Focuses on how to create sustainable supply chains that profitably yield high-quality, safe products without supply interruption while creating a net benefit for the employees, community, and the environment. Studies how companies measure environmental performance and use the data to motivate associates, suppliers, customers, policymakers, and the public. Also addresses the impacts of global sustainability frameworks and measures.

Prerequisite(s): SCHM 3301 with a minimum grade of D- or SCHM 3305 with a minimum grade of D- or SCHM 3310 with a minimum grade of D-

SCHM 3990. Elective. (1-4 Hours)

Offers elective credit for courses taken at other academic institutions. May be repeated without limit.

SCHM 4970. Junior/Senior Honors Project 1. (4 Hours)

Focuses on in-depth project in which a student conducts research or produces a product related to the student's major field. Combined with Junior/Senior Project 2 or college-defined equivalent for 8 credit honors project. May be repeated without limit.

SCHM 4983. Special Topics in Supply Chain Management. (4 Hours)

Offers special topics in Supply Chain Management. May be repeated once.

SCHM 4990. Elective. (1-4 Hours)

Offers elective credit for courses taken at other academic institutions. May be repeated without limit.

SCHM 4992. Directed Study. (1-4 Hours)

Offers independent work under the direction of faculty members of the department on a chosen topic. Course content depends on instructor. May be repeated up to four times for a maximum of 8 semester hours.

SCHM 6201. Operations and Supply Chain Management. (3 Hours)

Focuses on the integrative management of processes and activities involved in transformation and delivery of goods and services. Offers students an opportunity to obtain foundational knowledge on operations and supply chain management concepts, techniques, and functions. Topics covered include sourcing and procurement, manufacturing and service operations, process design and control, quality management, capacity planning, demand planning and forecasting, inventory management, transportation and distribution management, interfirm relationship management, and attendant information flows.

SCHM 6211. Logistics and Transportation Management. (3 Hours)

Examines the logistics and transportation operations, including the structure, challenges, and potential of the major modes of domestic transportation. Focuses on the interaction between logistics providers and shippers in the marketplace. Explores the major dynamics of the logistics marketplace and their impact on supply chain management. Offers students a managerial perspective on controlling what is typically the most expensive component of supply chain management, transportation expenditures.

Prerequisite(s): SCHM 6201 (may be taken concurrently) with a minimum grade of C- or SCHM 6208 (may be taken concurrently) with a minimum grade of C- or SCHM 6210 (may be taken concurrently) with a minimum grade of C- or SCHM 6200 with a minimum grade of C- or IE 7200 with a minimum grade of C- or SCHM 6318 with a minimum grade of C-

SCHM 6213. Global Supply Chain Strategy. (3 Hours)

Focuses on the managerial activities of those involved in supply chain management operations and planning for companies involved in international commerce. Analyzes contemporary issues that affect the design of international supply chain systems and strategies, including sourcing, logistics, transactions, risk, and ethical considerations. Examines the current status and future prospects of the modes of international logistics operations as well as international trade and development issues, not only from the corporate perspective but also in terms of government policy.

Prerequisite(s): SCHM 6201 (may be taken concurrently) with a minimum grade of C- or SCHM 6208 (may be taken concurrently) with a minimum grade of C- or SCHM 6210 (may be taken concurrently) with a minimum grade of C- or SCHM 6200 with a minimum grade of C- or IE 7200 with a minimum grade of C- or SCHM 6318 with a minimum grade of C-

SCHM 6214. Sourcing and Procurement. (3 Hours)

Addresses the strategic and operational role of sourcing and procurement and its impact on the supply chain as it relates to the entire organization. The selection, contracting, development, and monitoring/managing of the right supplier in the right location is more often a source of competitive advantage and a major contributor to a company's bottom line. Focuses on a variety of aspects of this function—strategy development, organization, procedures, supplier selection, negotiations, buyer-supplier relationship management, quantity, quality, timeliness, and cost/price considerations for the purchase of goods and services. Emphasizes the perspective of the sourcing and procurement manager. The key questions addressed in this course are: What does the manager need to know to be effective? How do they apply key concepts?

Prerequisite(s): SCHM 6201 (may be taken concurrently) with a minimum grade of C- or SCHM 6208 (may be taken concurrently) with a minimum grade of C- or SCHM 6210 (may be taken concurrently) with a minimum grade of C- or SCHM 6200 with a minimum grade of C- or IE 7200 with a minimum grade of C- or SCHM 6318 with a minimum grade of C-

SCHM 6215. Supply Chain Analytics. (3 Hours)

Designed to develop strategic decision-making skills using the latest analytics capabilities and enabler. Examines the state of the art in analytics capabilities and how these drive supply chains, from marketing to sourcing. Also examines how organizations use analytics to meet their strategic objectives, provide value to the business, and make decisions. Focuses on industry best practices, including studying some of the leading companies.

Prerequisite(s): IE 7200 with a minimum grade of C- or SCHM 6200 with a minimum grade of C- or SCHM 6201 (may be taken concurrently) with a minimum grade of C- or SCHM 6208 (may be taken concurrently) with a minimum grade of C- or SCHM 6210 (may be taken concurrently) with a minimum grade of C- or SCHM 6318 with a minimum grade of C-

SCHM 6221. Sustainability and Supply Chain Management. (3 Hours)

Focuses on how to create sustainable supply chains that profitably yield high-quality, safe products without supply interruption while creating a net benefit for the employees, community, and the environment. Studies how companies measure environmental performance and use the data to motivate associates, suppliers, customers, policy makers, and the public. Also addresses the impacts of global sustainability frameworks and measures.

Prerequisite(s): SCHM 6201 (may be taken concurrently) with a minimum grade of C- or SCHM 6208 (may be taken concurrently) with a minimum grade of C- or SCHM 6210 (may be taken concurrently) with a minimum grade of C- or SCHM 6200 with a minimum grade of C- or IE 7200 with a minimum grade of C- or SCHM 6318 with a minimum grade of C-

SCHM 6223. Managing Healthcare Supply Chain Operations. (3 Hours)

Examines concepts and topics related to the design and management of supply chain operations in the healthcare sector. Focuses on activities and functions such as inventory control, order fulfillment, logistics, procurement, managing processes, relationship management, and information technology systems. Introduces various tools and techniques that enhance effective supply chain operations in healthcare organizations.

SCHM 6224. Demand Planning and Forecasting. (3 Hours)

Offers a practical introduction to demand (sales) forecasting for business students. Focuses on the organizational processes in generating a forecast, regression analysis, exponential smoothing, time-series analysis, judgmental forecasting methods, and evaluation of forecast quality. Uses real-life data and various software packages to illustrate basic concepts.

Prerequisite(s): SCHM 6201 (may be taken concurrently) with a minimum grade of C- or SCHM 6208 (may be taken concurrently) with a minimum grade of C- or SCHM 6210 (may be taken concurrently) with a minimum grade of C- or SCHM 6200 with a minimum grade of C- or IE 7200 with a minimum grade of C- or SCHM 6318 with a minimum grade of C-

SCHM 6318. Managing Operations and the Supply Chain. (2 Hours)

Focuses on the integrative management of processes and activities involved in transformation and delivery of goods and services. Emphasizes foundational knowledge on supply chain and operations management concepts, techniques, and functions. Topics covered include sourcing and procurement, manufacturing and service operations, logistics management, process design and control, inventory management, interfirm relationship management, and attendant information flows.

SCHM 6962. Elective. (1-4 Hours)

Offers elective credit for courses taken at other academic institutions. May be repeated without limit.

SCHM 7976. Directed Study. (1-4 Hours)

Offers independent work under the direction of members of the department on chosen topics. May be repeated without limit.