

## SCM Supply Chain Management

### SCM 101 Supply Chain Management (3-0) 3 crs.

Introduces Supply Chain Management (SCM) and the end-to-end (E2E) business processes necessary to achieve market and financial value, as well as competitive advantage. SCM is achieved by an organization proactively adopting initiatives to move suppliers and customers into collaborative relationships for mutual gain. Attention is focused on the fundamentals including customer service, fulfillment, demand planning and forecasting, inventory control, procurement, storeroom/warehousing, production control/operations, and physical distribution/logistics. All topics focus on technology, financial trends and career paths within the field.

### SCM 120 Production Control (3-0) 3 crs.

Describes the development, scope, and objectives of production control. Outlines the coordination of manufacturing resources (money, manpower, materials and machines) and how they apply to this function. Focuses on scheduling, releasing and tracking of production orders and associated schedules, and the reporting of materials and resources used in the production process. Outlines the Enterprise-wide linkages and technology implications as related to overall company and business strategy through CRP, ERP, MRP and MPS activities and related roles.

**Prerequisite:** SCM 101 or consent of program coordinator.

### SCM 122 Inventory Management (3-0) 3 crs.

Provides an overview of the dynamics of managing inventory within the constantly evolving supply chain environment. Topics include forecasting inventory requirements based upon customer and consumer demand, understanding inventory management as related to production planning, modeling various scenarios based upon demand information, and recognizing the various processes and technology used in inventory management today.

**Prerequisite:** SCM 101 or consent of program coordinator.

### SCM 123 Transportation (3-0) 3 crs.

Reviews the framework of the transportation/distribution component of Logistics as part of the broader Supply Chain, and how it is a key component of the strategy and customer service for an organization. Provides an overview of various transportation systems and the impact on costs and service that each system provides. Examines the different types of modes and routings, and the impacts of regulatory and environmental decisions. Reviews the operational aspects of the transportation function, responsibilities for the key job functions associated with transportation, and overall trends within the industry.

**Prerequisite:** SCM 101 or consent of program coordinator.

### SCM 124 Warehouse Operations (3-0) 3 crs.

Provides an overview of the movement of goods within a warehouse environment, including the overall concepts of material handling, warehouse management, and packaging. Covers topics such as warehouse automation, containerization, palletization, conveyor systems, racking, kitting, picking and sorting. Reviews concepts such as the strategic nature of distribution centers versus traditional warehousing, and the overall impact of packaging beyond just product protection. Discusses the overall organizational structure and impact of warehouse operations as part of the broader supply chain.

**Prerequisite:** SCM 101 or consent of program coordinator.

### SCM 125 Procurement (3-0) 3 crs.

Covers the overall function of Procurement and its importance within the Supply Chain. Focuses on the strategic role of Procurement within the organization and how it directly contributes to the financial results of the business. Discusses overall roles and responsibilities within the function including preparation for and analysis of supplier bids and quotations, processes for purchase orders and contracting, inventory management and materials planning, supplier relationship management and performance management, total cost of ownership review, business continuity planning, and social and ethical responsibility.

**Prerequisite:** SCM 101 or consent of program coordinator.

### SCM 126 Demand Planning (3-0) 3 crs.

Provides an introduction and overview of the demand planning function as part of the broader supply chain. Topics covered include objectives of the function, the benefits of effective demand planning in an organization, the process of forecasting demand, the various types of demand, rules for ordering and optimizing of orders, the concept of economic order quantity and mitigating stock out risks, differences in demand distribution, sales and operations planning (S&OP), MRP and JIT.

**Prerequisite:** SCM 101 or consent of program coordinator.

### SCM 127 Customer Service and Fulfillment (2-0) 2 crs.

Provides an introduction and overview of customer service and order fulfillment as part of the overall end to end (E2E) supply chain of an organization. Topics covered include 1) The overarching supply chain and logistics infrastructure, strategy and terminology 2) the design of the service value stream to meet customer and consumer needs, 3) the order management and fulfillment cycle and how it drives success and revenue growth, 4) the role of the customer service professional and the importance of planning, strategy, and performance measures, and 5) the increasing role of technology to enable a customer-centric approach.

**Prerequisite:** SCM 101, or consent of program coordinator.

### SCM 226 Advanced Planning and Integration (3-0) 3 crs.

Focuses on the advanced concepts of planning, processes and technology to ensure a successful supply chain. Covers systems-based Material Requirements Planning (MRP) as part of the broader Enterprise Requirements Planning (ERP) framework and explores problem solving and complex solutions to supply chain integration needs. Focuses on leveraging systems to reduce inventories, set priorities, initiate orders, initiate purchase requirements, develop master production schedules and optimize the total cost structure within the supply chain. Also explores the concepts of Total Quality Management (TQM) and various elements of LEAN production and processes.

**Prerequisite:** SCM 101 and SCM 120, or consent of program coordinator.

### SCM 228 Logistics Design and Strategy (3-0) 3 crs.

Provides a comprehensive view of existing logistics practices and strategies within a global economy. Explores ways to create a competitive advantage through logistics principles and network design models, and outlines an approach for integrating logistics as a core competency within an organization's supply chain strategy.

**Prerequisite:** SCM 101 and SCM 123, or consent of program coordinator.

**SCM 259 Sourcing and Supply Management (3-0) 3 crs.**

Takes the study of the procurement function to the next level following the completion of SCM 125. Focuses on a deeper look at the total cost of ownership (TCO), the overall processes and details behind strategic sourcing, the function of category management, more complex negotiation skills, the components of supplier relationship management (SRM), and the leadership function and role of the Procurement/Supply Management professional.

**Prerequisite:** SCM 101 and SCM 125, or consent of program coordinator.

**SCM 281 Topics in Supply Chain Management (1-0 to 3-0) 1-3 crs.**

Studies selected problems or topics in supply chain management. The exact content and instructional methodology will vary semester to semester depending on the material to be studied. A syllabus or course outline containing additional information will be available with pre-registration materials each time that the course is offered. This course may be repeated to a maximum of six credit hours.

**Prerequisite:** Six (6) hours of SCM coursework or consent of program coordinator.