Supply Chain Management (SCM)

Courses

SCM 644. Purchasing. 3 Credits.
The Purchasing course will explore procurement's strategic and operational aspects of within a modern supply chain. The course covers the development of an effective supply strategy, guiding decisions on whether to make in-house or buy from external sources, alongside exploring insourcing and outsourcing approaches. Students will learn how to accurately identify organizational needs, assess cost management practices, and ensure the quality and quantity management in procurement processes. A key focus will be on selecting of suppliers, evaluating both qualitative and quantitative factors to secure the best partnerships. The course also covers critical areas such as contract management, negotiation techniques, and the complexities of global supply chains. Emphasizing real-world application, the curriculum prepares students to manage purchasing functions integral to maintaining competitive advantage in today's interconnected global market.
Fall Even.

SCM 701. Supply Chain Management Strategies & Financing. 3 Credits.
This course prepares students to develop and implement successful supply chain management strategies by exploring both the strategic and financial aspects essential for ensuring business success. Key topics include supply chain strategy formulation, financial management, risk mitigation, and the integration of operations and finance. Emphasis is placed on leveraging the financial strengths of supply chain partners, fostering sustainable practices, and navigating the complexities of global supply chains.
Fall Odd.

SCM 702. Advanced Logistics Management. 3 Credits.
Advanced Logistics Management explores the intricacies of logistics within the broader scope of supply chain management (SCM). This course will enhance students' understanding of logistics components, their integration with other business functions, and their critical role in today's global business landscape. The primary focus is on the efficient storage and distribution of goods and services and managing returns, either independently or with channel partners. This course aims to provide a comprehensive insight into logistics functions, principles, and strategies, emphasizing cost reduction and minimizing environmental impact.
Fall Odd.

SCM 703. Sustainability in Supply Chains. 3 Credits.
Sustainability in Supply Chain Management provides graduate students with a comprehensive understanding of the sustainability challenges facing supply chain management (SCM), logistics management (LM), and transportation systems. The course explores the integration of sustainability into business decision-making, addressing environmental, ethical, social, and economic concerns - commonly called the "triple bottom line." Students will evaluate sustainable procurement practices, life cycle assessment (LCA), and the shift towards circular economies, focusing on reducing environmental impacts while improving corporate performance. Additionally, the course covers strategies for optimizing sustainable infrastructure, measuring sustainability, and employing data-driven solutions for climate change mitigation.
Spring Even.

SCM 704. Applied Inventory Management and Risks in Supply Chains. 3 Credits.
Applied Inventory Management and Risks in Supply Chains is an analytical course that explores the critical aspects of managing inventory within the broader context of supply chain management. By applying various industry models, students will learn how to effectively plan and control inventory levels, ensuring a balance between meeting customer demands and maximizing organizational profitability. This course emphasizes practical approaches to inventory management, exploring key strategies that optimize supply availability while minimizing excess stock. Additionally, the course examines the growing significance of managing risks in modern supply chains, particularly in light of disruptive global events and the increasing reliance on outsourcing, digital supply networks, and global logistics. Students will gain insight into risk identification and mitigation strategies, addressing supply chain vulnerabilities, and developing effective responses to disruptions.
Fall Even.

SCM 705. Advanced Operations Management. 3 Credits.
The Advanced Operations Management course is designed to provide an in-depth exploration of advanced concepts and practices in operations management, focusing on the strategic and analytical skills necessary to enhance value creation within organizations. Students will explore demand management strategies, learning to balance supply and demand effectively to meet organizational goals. The course will focus on optimizing operational efficiencies through a variety of methodologies and tools, including lean processes, Six Sigma techniques, and statistical quality management. Furthermore, students will learn how to analyze and improve both manufacturing and service-based operations, with a particular emphasis on integrating these techniques into broader supply chain strategies.
Fall Even.

SCM 706. Supply Chain and Operation Analytics. 3 Credits.
The Supply Chain and Operation Analytics course focuses on data analytics' critical role in modern Supply Chain Management (SCM) and Logistics Management (LM). Students will learn to interpret, analyze, and apply data-driven insights to enhance operational efficiencies, optimize decision-making, and drive business success. Through practical exercises and case studies, learners will develop skills in predictive modeling, statistical analysis, and data visualization, all aimed at improving supply chain performance. Additionally, this course prepares students for leadership roles in supply chain analytics by fostering a deep understanding of leveraging data to optimize operations, reduce costs, and improve overall business performance. Students will be equipped to make informed, evidence-based decisions that drive competitive advantage in today's data-centric business environment.
Fall Even.

SCM 780. Advanced Project Management. 3 Credits.
This is an advanced project management course for graduate programs. This course covers the project management methodology recommended by the Project Management Institute (PMI), USA and prepares students for successfully managing projects (new initiatives) in organizations from inception to completion in a consistent and structured manner. This course provides the knowledge of standardized terms, knowledge areas, process groups and processes defined in Project Management Book of Knowledge (PMBOK) which is used in project management across the world. This course will prepare students for clearly defining the scope, planning activities, budget and cost management of these activities, human resource planning, communication planning, stakeholder analyses and handing over the final product or services to operations at the end of the project. This course also exposes students to other project management methodologies such as agile project management and lean project management.
P: Graduate Standing
Fall and Spring.

SCM 796. Professional Project. 3 Credits.
The "Professional Project" is a graduate-level capstone course for students of Supply Chain Management, designed to integrate and apply theoretical knowledge to real-world industry challenges. Throughout the course, students will collaborate in teams to tackle an actual logistics problem faced by a local business, emphasizing critical thinking, problem-solving, and applying supply chain principles in a practical environment. This hands-on experience allows students to bridge the gap between academic theory and industry practices, working closely with professionals in the logistics sector to develop innovative solutions.
Spring.