

School of Supply Chain, Logistics & Maritime Operations

Overview

The School of Supply Chain, Logistics, and Maritime Operations offers an interdisciplinary curriculum to facilitate maritime-focused education in supply chain and logistics. Developed in collaboration with maritime supply chain partners throughout Coastal Virginia, the curriculum leverages the knowledge, skills, and strategic vision of world-class, industry-aligned faculty to ensure up-to-date insights and relevance for students transitioning to and from the practitioner world.

The interdisciplinary nature of this program allows students to seamlessly integrate their learning journey with specializations in industry 4.0, maritime and military defense logistics, port and ship operations, cybersecurity, data science, and supply chain informatics/analytics, among others.

Programs

Master's Degrees

- Maritime Trade and Supply Chain Management (MS) (<http://catalog.odu.edu/graduate/supply-chain-logistics-maritime-operations/maritime-trade-supply-chain-management-ms/>)

Certificates

- Artificial Intelligence (AI) in Supply Chain Operations (<http://catalog.odu.edu/graduate/supply-chain-logistics-maritime-operations/artificial-intelligence-in-supply-chain-operations-certificate/>)
- Maritime, Ports, and Logistics Management Certificate (<http://catalog.odu.edu/graduate/supply-chain-logistics-maritime-operations/maritime-ports-logistics-management-certificate/>)
- Supply Chain Management Certificate (<http://catalog.odu.edu/graduate/supply-chain-logistics-maritime-operations/supply-chain-management-certificate/>)

Courses

PORT 610 International Shipping and Supply Chain Management (3 Credit Hours)

Examines international freight transportation and terms for movement of international trade; focuses on improving supply chain relationships in the movement of international trade/directing the flow of information, materials and products. (cross-listed with MSCM 610)

PORT 611 International Maritime Transport (3 Credit Hours)

Examines the international business of shipping, commercial processes, maritime-related organizations, shipbuilding and repair, ship types and fleets, and commodity movement.

Prerequisites: an undergraduate course in the international field such as MGMT 361, MGMT 462, or a similar graduate course

PORT 612 Port Operations and Management (3 Credit Hours)

Covers role, functions, and types of international terminals and ports, including design and operation of general and specialized cargo handling facilities and offshore systems, port authorities, operational structures, and labor.

Prerequisites: a graduate course in management such as MGMT 602 and a course in operations management

PORT 613 International Maritime and Admiralty Law (3 Credit Hours)

International law of the sea, maritime jurisdiction, regulation of shipping, carriage of goods, marine insurance, salvage, marine environmental law, safety at sea, and the Oil Pollution Act of 1990 are covered, along with other maritime laws.

Prerequisites: a basic law course

PORT 614 Port Planning and Economics (3 Credit Hours)

Port planning and competition, ports and ocean container shipping, port impacts, port users in theory, port operator costing and pricing, port carriers and shippers, government and maritime institutions, dockworkers, port environment and port performance evaluation.

Prerequisites: a course in microeconomics such as ECON 604

PORT 615 Maritime Security and Risk Analysis (3 Credit Hours)

An overview of international and U.S. initiatives to ensure the security of vessels, cargo, people, and infrastructure within the maritime domain. In addition to the impacts of regulatory requirements on maritime commerce, the course also addresses maritime threats to the international economy (including maritime piracy and maritime terrorism), maritime coalitions, and state-of-the-art techniques and tools for safeguarding oceanborne commerce. (cross-listed with MSCM 615)

PORT 616 Reverse Logistics and Sustainable Operations (3 Credit Hours)

This course explores the theoretical foundations of global supply chain partnerships and reverse logistics systems, and examines the practices, risks, and opportunities found in today's systems. Fundamental tools and techniques are used to provide insights and solutions on how to best organize, manage, and optimize such systems to achieve sustainable performance. (cross-listed with MSCM 616)

Pre- or corequisite: MSCM 641 or PORT 611 or PORT 612 or instructor's permission

PORT 617 Transportation Management (3 Credit Hours)

The course includes a review of the key elements of transportation such as: modes of transportation, transportation economics, and transportation technology and regulations. The relationships between intermediaries, carriers and shippers are discussed, as well as company roles and operations within the transportation field, transportation sourcing and management, and transportation risk management.

PORT 618 Shipbuilding and Ship Repair Business Management (3 Credit Hours)

Examines the shipbuilding and ship repair industry from the perspective of industry economics, industry financial management and repair operations and acquisition processes. Provides industry professionals with business management practices that shape the industry.

PORT 619 Marine Insurance (3 Credit Hours)

Examines the rise of Lloyd's and the London Insurance Market, the current maritime insurance market, principles of insurance and law, Hull Insurance Law, cargo insurance, general average and salvage insurance.

PORT 641 Supply Chain Management and Logistics (3 Credit Hours)

This course examines supply chain management, the integration of all activities associated with the flow of materials and information from product start to customers' receipt. Examples include order processing, warehousing, inventory management, transportation and logistics, and the costs and information systems supporting these activities. Particular attention will be paid to global logistics systems supporting port and maritime activities. Supply chain relationships can be improved through effective integration of management and via such technologies as the World Wide Web, electronic data exchange, and enterprise resource planning (ERP). (cross-listed with MSCM 641)

PORT 668 Directed Research/Port Internship (1-3 Credit Hours)

Practical field experience in international maritime, ports and logistics related challenges through supervised investigation and analysis of a problem or a working internship within the port-related arena.

Prerequisites: PORT 611, PORT 612, PORT 613, and PORT 614

PORT 695 Selected Topics in Maritime and Port Management (3 Credit Hours)

The advanced study of selected topics not offered on a regular basis.

Prerequisites: PORT 611 or PORT 612

PORT 697 Independent Study (3 Credit Hours)

Designed to provide the opportunity for independent study under the guidance of a member of the faculty.

SCLM 515 Maritime and Supply Chain Safety and Security (3 Credit Hours)

This course examines methods to anticipate threats and mitigation strategies for securing the supply chain and increasing its resilience. It provides an overview of international and U.S initiatives to ensure the security of logistics assets, cargo, people, and infrastructure within the maritime and supply chain domain. The course also addresses threats to the international trade (including maritime piracy, terrorism, cyber threats), and state-of-the-art techniques and tools for protecting the industry against cyberattacks, as well as roles and responsibilities of the supply chain actors.

SCLM 519 Maritime and Supply Chain Risk and Insurance (3 Credit Hours)

This course examines the risks associated with supply chain operations, including aspects of identification, analysis, assessment, response, and control of the risks associated with the transportation and storage of goods. It covers risk assessment as a function of threats, vulnerabilities, and consequences for operational performance for all modes of transportation. Topics include Lloyd's and the London Insurance Market, principles of insurance and law, international liability conventions, institute clauses, exclusions, cargo policies, particular and general average, and salvage insurance.

SCLM 542 Supply Chain and Maritime Intelligence (3 Credit Hours)

This course examines the performance metrics of the supply chain, including item tracking and visibility of the whole chain, including control tower approaches. It covers the importance of supply chain information collection, real-time data sharing and basic analytics tools to evaluate and improve the degree of execution of the supply chain and generating insights. Topics include monitoring supply chain processes, end-to-end visibility, collaborative supply chain networks, data integration, and data visualization.

SCLM 550 Supply Chain 4.0 Technologies and Innovations (3 Credit Hours)

This course examines the role of technology within the supply chain and how these technologies can be used to improve supply chain performance. Topics include AI, blockchain and smart contracts, IoT and digital twins, Large Language models (LLM), automation and robotics, digital supply chain transformation, machine learning in supply chain, anti-hacking technologies, autonomous vehicles, and additive manufacturing, among others.

SCLM 561 Warehousing, Distribution and Material Management (3 Credit Hours)

This course is designed to investigate the strategic role of warehouses, distribution centers and material management in domestic and global supply chains. Course content includes the analysis of distribution center operations through the study of warehouse design and layout, material handling systems and equipment, distribution network design, warehouse processes, order-picking strategies, inventory control, and safety.

SCLM 572 Vessel Fleet Operations (3 Credit Hours)

Examines the operations of freight shipping organizations involved in the transport of cargo by ship. Key topics are vessel fleets and ship space; shipping markets, operations, costs, investment, insurance, claims, and regulation; and ship types, cargoes, safety, flagging, pollution, and chartering, purchase and scrapping.

Prerequisites: SCLM 370

SCLM 573 Inland Waterways and Dredging Operations (3 Credit Hours)

This course is designed to explore and analyze the current condition of inland waterways and the maintenance of the navigational channels. It will include topics such as: the importance of marine highways, current waterways infrastructure (dams, locks and canals), barge types, the environmental benefits as well as its current legislation and policy. Also, it will cover dredging processes, types of equipment and stages of dredging projects with emphasis on the maintenance of navigation channels, disposal sites, and beneficial use of dredge materials.

SCLM 574 Shipbuilding and Ship Repair Logistics (3 Credit Hours)

Examines the shipbuilding and ship repair industry from the perspective of industry economics, technology, project management and supply and procurement processes. It covers principal ship dimensions, typical types of ship repairs, the preparation for a routine docking period with emphasis on the materials logistics, and the shipbuilding logistics process.

SCLM 581 Freight Brokerage and 3PL Services (3 Credit Hours)

This course covers the basics of Freight Brokering including types of freight and the types of niche markets available, import/export compliance and regulations, Broker-Carrier and Broker-Shipper Agreements, determination of freight shipment rates, load tracking, and carrier relations. Also, it covers the role of the 3PLs in freight brokerage plus inventory management, consolidation, order fulfillment and warehousing.

SCLM 586 Cruise Ship Operations (3 Credit Hours)

Overview cruise ship markets and tourism, and cruise ship types and cruise ship lines. Basic cruise operations including sales, supplies, safety and security, itineraries and ports of call, terminal operations and personnel management. Detailed understanding of the relevant issues surrounding the cruise ship terminal operations and sustainability of cruise line services.

SCLM 630 Strategic Sourcing and Procurement (3 Credit Hours)

An overview of the strategic sourcing of materials and services in the organization and its role in the supply chain. Topics include supply management, sourcing analytics, price/cost analysis, quality issues, supplier evaluation and selection, global supply risk and ethical and sustainable dimensions of global sourcing. This course also covers supply and procurement negotiations. It examines conceptual and practical skills in negotiations.

SCLM 641 Supply Chain Management and Logistics (3 Credit Hours)

This course explores strategic, tactical, and operational aspects of global supply chain and logistics management. Topics include end-to-end planning, international logistics, SCOR model application, and multimodal transportation processes. Emphasis is on analytics-driven, data-informed decision-making across global supply chains. The course also covers international trade entry strategies, payment, documentation, insurance, and customs processes.

SCLM 690 Supply Chain, Logistics, and Maritime Capstone (3 Credit Hours)

This capstone course covers best practices in global supply chain management, focusing on models, methods, and tools for effective planning, organization, and governance. Students examine end-to-end fulfillment strategies in a global environment with attention to environmental, ethical, and cultural factors. Topics include a semester-long project incorporating aspects of logistics, maritime operations, and the impact of Industry 4.0 on supply chains.