



Master of Science in Operations and Supply Chain Management

GENERAL TRACK:

- MSc in Operations and Supply Chain Management

SPECIALISATION TRACKS:

- Oil & Gas
- Procurement & Sourcing

The general track in MSc in Operations and Supply Chain Management enables students to analyse the latest developments in operations and supply chain practice across a variety of sectors. You should emerge equipped with the knowledge and skills to help you reach senior managerial positions and become an operations, logistics, or supply chain strategist of the future.

PROGRAMME OUTLINE

- The aim of our general track in Operations and Supply Chain Management, as well as our specialisation tracks in Oil & Gas and Procurement & Sourcing, is to provide postgraduate-level education in operations and supply chain management principles, theories, and practice. Designed by a leading UK research group, the specialisations offer a theoretical and practical examination of the factors necessary for effective operations and supply management in today's global and highly competitive markets.
- The global virtual classroom in which you study enables you to understand the practical and strategic implications of multinational supply chains and learn directly from your professional counterparts in other parts of the world.
- In addition, the programme demonstrates how successful operations performance and procurement and sourcing can shape and influence the sales and profit ambition of a business. The intent is to provide you with a profound understanding of the processes and techniques for developing operations

strategies, procurement and sourcing strategies, and managing operations and supply chain activities.

GENERAL TRACK

- The six core modules for all three programmes cover core subjects such as Strategic Operations Management, Supply Chain Operations Management, Logistics and International Trade, Business Analysis, Total Quality Management, and Lean Thinking.
- The remaining specialisation modules and elective modules you must choose from will differ depending on your programme of choice. You complete your degree with an original dissertation.
- You should graduate with a range of key transferable skills that will enhance your access to a wide variety of internationally focused managerial positions in the field of operations and supply chain, as well as the global oil, gas and energy industries.

SPECIALISATION TRACKS

Oil & Gas

- The elementary economic patterns of the oil and gas industry are thoroughly explored in our specialised track in Oil & Gas. You will gain a thorough understanding of the economic nature and structure of the oil, gas, and energy sectors and discover the intricacies associated with sourcing energy, energy distribution, and sustaining energy supply chains. This specialisation track will equip you with postgraduate level education in operations and supply chain management principles, theories and practice.

Procurement & Sourcing

- The specialised track in Procurement and Sourcing explores the many facets of supporting a global logistics network. To manage costs, increase quality, and reduce risk, procurement and sourcing have become an integral element of

the planning and coordinating processes across global organisations. The process of global procurement and sourcing involves a set of complex relationships within the context of the contract, involving macro factors such as trade agreements, regional trade consortia, taxation, and duties. This specialisation also provides a solid foundation in critical analysis of international legal institutions, cultural differences, and currency fluctuations.

Programme structure

- You are required to follow two, non-credit bearing, modules (Student Readiness Orientation and Foundations for Academic Success) that will prepare you for the online learning experience. For more information about these modules – full module descriptions including their duration, as well as the additional support services available – please read the [Centre for Student Success](#) document.
- Each programme is then comprised of six core modules and two elective modules. The latter two modules differ depending on your programme of choice. If you opt for either specialisation, a predefined choice of two specialisation modules makes up the remainder of your study. You complete your degree with an original dissertation (for a total of 180 credit points).
- The first module is nine weeks in length. Each subsequent module lasts eight weeks. You take one module at a time in order to study a specific subject in-depth without distractions.

PREPARATORY MODULES (ALL PROGRAMMES)

- Student Readiness Orientation
- Foundations for Academic Success

CORE MODULES (ALL PROGRAMMES)

- Strategic Operations Management
- Business Analysis and Assessment
- Logistics and International Trade
- Supply Chain Operations Management
- Total Quality Management
- Lean Thinking

ELECTIVE MODULES – GENERAL TRACK

(students choose one elective from Group A and the other elective from either Group A or Group B)

Group A

- Operations Modelling and Simulation
- Project Management
- E-Commerce

Group B

- Marketing Management
- International Business and Emerging Markets
- Performance Management
- Economics of Oil, Gas and Energy
- Managing Energy Sources
- Contracts and Procurement
- Financial and Legal Aspects of International Trade

SPECIALISATION MODULES – OIL & GAS

(students must choose both modules)

- Economics of Oil, Gas and Energy
- Managing Energy Sources

SPECIALISATION MODULES – PROCUREMENT & SOURCING

(students must choose both modules)

- Contracts and Procurement
- Financial and Legal Aspects of International Trade

DISSERTATION (ALL PROGRAMMES)

- The culmination of the programme, this written project demonstrates mastery and integration of all your previous learning. The dissertation is the cornerstone of the UK university system. It is an original, scholarly work that applies your new knowledge and experience and allows you to prove your mastery of the techniques studied.
- Students choose their dissertation topic in conjunction with their Personal Dissertation Advisor, an academic supervisor who provides support throughout the study and writing process. The primary focus of your dissertation is expected to be relevant to a topic in the field of operations and supply chain management.

PROGRAMME DURATION

- The programme takes an average of 30 months to complete. However, since students progress at their own pace, you may choose to complete your studies in as little as 24 months or spread them over 36 months.

CIPS ACCREDITATION

- The MSc in Operations and Supply Chain Management is the first wholly online programme to be accredited by the Chartered Institute of Purchasing and Supply (CIPS), a globally recognised credential. Upon graduating, students are automatically eligible to apply to join a network of 60,000 purchasing and supply professionals from around the world who benefit from CIPS membership. For more information visit www.cips.org.



CORE MODULES

Strategic Operations Management

Aim: To demonstrate that operations strategies can deliver competitive advantage.

- You will study topics that include the examination of modern business drivers and competitive performance (time compression, responsiveness, waste elimination, etc.); the achievement of competitive advantage through operations management; globalisation and supply chains; agility and efficient consumer response; and operations performance measurement. Within each topic, you will analyse leading-edge operational practice.

Business Analysis and Assessment

Aim: To develop an understanding of the processes involved in managing organisations.

- This module offers a broad view of management processes, including strategic management, financial statement analysis, benchmarking (including use of the balanced scorecard), research methods, and teamwork. You will also understand the interconnectivity of departments within the organisation. The module will encourage you to develop self-confidence and team skills and will promote the use of research methods to encourage independent learning.

Logistics and International Trade

Aim: To provide a thorough grounding in modern logistics operations and management and in the nature and practice of international trade.

- In the Logistics section of the module, you will examine intermodal operations, transport selection, warehousing and distribution management. In the International Trade section, key topics include the role of the World Trade Organisation, trade restriction, import and export practice, and trade models. You will learn about purchasing policies and strategies including

contract negotiations, as well as learn about making/buying and outsourcing decisions.

Supply Chain Operations Management

Aim: To convey the principles, role and complexities of supply chain management and the techniques necessary for its optimisation.

- You will examine the key principles, systems, and techniques used to assure effective supply chain management. This module covers a range of subjects including logistics, information management, inventory forecasting and management, partnerships and information technology. The module will provide an understanding of the principles and role of supply chain management in organizations and the nature and importance of partnerships within the supply chain. You will also learn to apply many of the tools and techniques used to optimise supply chains.

Total Quality Management

Aim: To provide a thorough understanding of quality management and quality assurance tools.

- You will acquire an understanding of the management aspects of quality development and examine the applications of quality assurance tools. You will study subject areas that include the role and function of Total Quality Management; acceptance sampling; European Foundation for Quality Management (EFQM) excellence model and benchmarking; control charts; advanced quality planning; design of experiments; reliability definitions; problem solving tools; the impact of quality management on customer service and customer relationship management; and quality standards such as ISO etc.

Lean Thinking

Aim: To provide an understanding of the elements and benefits of lean thinking in business operations.

- This module introduces the philosophies and principles of lean thinking as well as providing a working knowledge of its supporting tools and

techniques. The module offers an opportunity to implement these in a realistic operations simulation. The module also covers the five stages to lean, waste free operations, including the application of mapping and continuous improvement tools. Finally, the module examines standard operations and workplace organisation, operations planning and control in a lean environment and customer/supplier development to support lean operations.

ELECTIVE MODULES – GENERAL TRACK GROUP A

Operations Modelling and Simulation

Aim: To provide an understanding of the role of modelling and simulation in the development of business processes.

- This module focuses on key elements of modelling and simulation, including analytical techniques of systems, statistical aspects of modelling, system dynamics and value chain and process mapping. You will be exposed to a variety of commercially available tools and will learn to understand a range of analytical methods and their application, the dynamic nature of systems and their behavioural characteristics, and how real system modules are developed, tested, and validated.

Project Management

Aim: To provide a working understanding of the discipline of project management in a business context.

- This module introduces you to the principles and practices of project management. You will learn about the key stages in a project lifecycle ranging from planning, budgeting, and risk analysis, through project monitoring and change management, to project closeout and reporting. You will also gain understanding and skills related to the role of the project manager.

E-Commerce

Aim: To provide an overview of key issues relating to e-Commerce.

- An introduction to the fundamentals of e-Commerce, from business models through technical infrastructure and implementation to social, legal and ethical considerations. You will act as a CIO/CEO working on an e-Commerce business proposal, with evaluations from a peer review group. Learning to build an e-Business holistically in a risk-free environment will help you become a more effective and successful manager.

ELECTIVE MODULES – GENERAL TRACK GROUP B

Marketing Management

Aim: To provide an understanding of marketing in terms of academic principles and practical applications.

- This module addresses current academic and practitioner issues in relation to global marketing management and key marketing concepts. You will evaluate important components of the marketing environment and assess the business advantages of understanding diverse groups of customers, buyer behaviour, marketing research, segmentation, positioning and targeting. You will also examine the significance of global marketing strategies.

International Business and Emerging Markets

Aim: To enhance students' awareness of the global business environment.

- You will learn how to analyse the decision-making processes, organisations, and management of international firms, using both theoretical and empirical approaches. In addition, you will develop an appreciation of the problems and risks facing international firms, and the means that they adopt

to overcome them. Finally, this module will examine the new opportunities available in emerging markets, and the difficulties that accompany them.

Performance Management

Aim: To provide an understanding of contemporary people management issues from a performance management perspective.

- You will study the implications of contemporary performance management approaches. You will also examine strategic and operational aspects of performance management systems and how these can be integrated into existing management systems. Finally, you will assess the potential contribution of performance management to the development of individual, group, and organisational capabilities.

Economics of Oil, Gas and Energy

Aim: To acquire intricate knowledge of the oil, gas and energy industries, along with its myriad analysis tools, and be introduced to the economic principles, concepts and practices associated with International Petroleum and other Energy markets.

- This module introduces economic concepts, tools, definitions, and acceptable practices of the international energy markets. You will acquire the aptitude to analyse economic markets and add value to the energy sector through the application of analysis tools for decision making. The introduction of industry related topics such as product stream forecasting, risk and uncertainty, capital budgeting and the economic analysis of operations are ideal assets for those seeking career advancement opportunities in the oil, gas, and energy industries.

Managing Energy Sources

Aim: To introduce the framework, concepts and principles associated with managing International Energy Markets

- This module will allow you to comprehend the fossil fuel and renewable energy resource aspects

of energy markets through the application of models and methodologies. Supply and cost curves, linear programming to identify consumption source and energy transpiration are integral topics that are well covered in this module from a managerial perspective. Your analytic skills will progress and your knowledge of energy market structures and energy policy will develop considerably throughout your eight week study.

Contracts and Procurement

Aim: To introduce the nature and importance of contracts and procurement within project management.

- Procurement and contracts are integral to successful project management. This module introduces strategies for approaching key issues with regard to short- and long-term contracts and small or large contracts. Topics covered include the examination of procurement strategies, responsiveness, and supplier-client relationships. You will examine tendering, bidding and order management processes, as well as all the relevant legal and commercial implications.

Financial and Legal Aspects of International Trade

Aim: To examine the dynamics of global sourcing currently practiced by leading international corporations.

- This module will equip you with the skills to assess how the dynamics of global sourcing meld with the business strategies of their practitioners. The module builds a working understanding of the barriers, constraints, and advantages that dictate the flow of effective supply chains and provides an understanding of the driving forces behind various sourcing methodologies. New trends in procurement are also presented as a basis for future direction.

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