

1. Teaching Institution	University of Technology Bahrain
2. University Department	College of Administrative and Financial Sciences
3. Programme Title	Master of Science in Logistics and Supply Chain Management
4. Title of Final Award	Master of Science in Logistics and Supply Chain Management
5. Modes of Attendance offered	Actual classroom learning-interactive
6. National Qualification Framework Level and Credit	NQF Level 9 126 NQF Credits (42 ACS Credits)
7. Accreditation	None
8. Other external influences	Local External Influence / Reference Ministry of Education (MOE), Higher Education Council (HEC) Education and Training Quality Authority (BQA) International External Influence / Reference AACSB Specialized master's degree Programmes Chartered Institute of logistics and Transport (CILT)
9. Date of effectivity	September 2024
10. Aims of the Programme	
The Master of Science in Logistics and Supply Chain Management provides the tools and techniques necessary to develop effective and efficient supply chains which deliver higher levels of value for the end user and facilitate sustainable business growth. This programme will provide the current theory and research, seeing how this information is practiced, and develop innovative solutions to real-life logistics and supply chain problems. Graduates of the programme three (3) to five (5) years after graduation shall be able to: 1. Practice effectively as professional by demonstrating, competency in the field of logistics and supply chains and apply critical thinking and problem-solving skills to develop, implement and evaluate solutions in complex logistics and supply chain situation; and 2. Promote high ethical standards and professionalism by evaluating the social and environmental implication of logistics and supply chain decision.	
11. Learning Outcomes, Teaching, Learning and Assessment Methods	
Upon successful completion of the programme, the student will be able to: 1. Demonstrate advanced knowledge and understanding of core concepts, theories, and principles in the field of logistics and supply chain management. 2. Apply advanced analytical skills, tools and techniques necessary to design effective supply chain operations. 3. Critically analyze the risks and strategies needed in global supply networks in developing innovative solutions to real-life logistics and supply chain problems. 4. Effectively Communicate and Work on real life case study, large scale logistics problem, or active research project in companies individually or in group. 5. Initiate ethical strategic decision in dealing with logistics and supply chain management situations.	

	Doc. No.	QR-AAD-01
	Revision No.	01
	Date of Effectivity	01-09-23
College: College of Administrative and Financial Sciences		
MSLSCM PROGRAMME SPECIFICATIONS AY2024-2025		Page 2 of 8

Teaching and Learning Methods	
1. Constructive Method. Learners must be fully engaged and active in the process of constructing meaning and knowledge based on their prior knowledge and experiences through the process of doing, making, writing, designing, creating and solving. It allows teachers to implement differentiated learning, authentic assessment practices and incorporate technologies to improve individual learning experiences. It includes simulations, in-course projects, field trips, digital content, group discussions and reflections. This method strives to improve achievement by consciously developing learners' ability to consider ideas, analyze perspectives, solve problems and make decisions on their own thereby making them more responsible and independent. 2. Inquiry based Method. Learners develop cognitive skills like critical thinking and problem solving by working on questions, problems, or scenarios and formulate creative solutions. The teachers use either structured, guided, or open inquiry to facilitate learning. As a process, learners are involved in their learning by formulating questions, investigating, building their understanding, and creating meaning and new knowledge on a certain lesson. Typically, activities include laboratory sessions and research-based activities. 3. Collaborative Method. Learners are divided into small groups to learn something together and capitalize on one's other resources and skills, evaluating one another ideas, and monitoring one another's work. It allows students to actively interact by sharing experiences and take on different roles. Typically, students are provided with problems or projects that they work on together to search for understanding, meaning, or solutions and each group is expected to work together developing or formulating solutions and present the solution in class. The activities include think-pair-share, jigsaw, or round-robin which effectively engage students to complete the tasks. 4. Experiential learning method is the process of learning by doing. By engaging students to hands on experience which attempts to apply theories and knowledge learned in the classroom to real-world situations. This may include team challenges, simulations, company visits/fieldworks and other extracurricular activities. Experiential learning opportunities exist in a variety of course- and non-course-based forms and may include community service, service-learning, graduate research on the field of digital marketing, and culminating experiences such as writing a thesis on this field.	
Assessment Methods	
• Assessment is done independently for each course. A variety of assessment tools will be used to assess achievement of intended learning outcomes including but not limited to: exams, assignments, case analysis, presentations, projects and thesis.	

 University of Technology Bahrain	Doc. No.	QR-AAD-01
	Revision No.	01
	Date of Effectivity	01-09-23
College: College of Administrative and Financial Sciences		
MSLSCM PROGRAMME SPECIFICATIONS AY2024-2025		Page 3 of 8

12. Programme Structure

MASTER OF SCIENCE IN LOGISTICS AND SUPPLY CHAIN MANAGEMENT CURRICULUM PLAN SY2023-2024

FIRST TRIMESTER

Course Code	Course Title	Units
PM911	Principles of Logistics and Supply Chain Management	3
PM912	Supply Chain Risk Management	3
PM913	Green and Sustainable Logistics	3
PM914	Introduction to Big Data for Supply Chain Management	3
Total Units		12

SECOND TRIMESTER

Course Code	Course Title	Units
PM921	Supply Chain Strategy and Design	3
PM922	Big Data Analytics	3
PM923	Maritime Transportation Management	3
RES911	Research Methods for Business	3
Total Units		12

THIRD TRIMESTER

Course Code	Course Title	Units
PME931	Elective 1	3
PME932	Elective 2	3
Total Units		6

FOURTH TRIMESTER

Course Code	Course Title	Units
PM999	Thesis Writing	12
Total Units		12

TOTAL UNITS: 42

Note: The PM999 Thesis Writing Course requires a minimum of two trimesters to complete.

Elective Courses: (Students are expected to choose any 2 courses from the Electives offered)

Course Code	Course Title	Units
PMEXXX	Strategic Supply Chain and Artificial Intelligence	3
	Logistics Cyber Security Compliance	3
	Supply Chain Modeling and Analytics Techniques	3
	Project Management	3
	Retail Logistics and Supply Chain Management	3
	Ethics and Sustainability	3

	Doc. No.	QR-AAD-01
	Revision No.	01
	Date of Effectivity	01-09-23
College: College of Administrative and Financial Sciences		
MSLSCM PROGRAMME SPECIFICATIONS AY2024-2025		Page 4 of 8

13. Awards and Credits	
Degree/ Certificate Awarded	Master of Science in Logistics and Supply Chain Management
Total Units for Degree	42
Total Trimesters Completed	4 trimesters
14. Admission Criteria	
Acceptance to the post graduate programmes as a new student depends on the following criteria:	
a. The applicant should have a bachelor's degree with a minimum CGPA of 2.75 out of 1.00 or 2.00 out of 4.00. b. All Applicants will be interviewed by a panel of two members. Only successful applicants in the interview will be considered for admission. The right to admission to an applicant is left to the judgment of the panel members in cases where the relevant subject matter has not been conclusively demonstrated by the applicant's academic transcript. c. Applicant who is not a graduate of a bachelor's degree not delivered in English, he/she may also present a minimum score of 496 (paper-based) and 169 (computer-based) in TOEFL or 5.5 in IELTS as an equivalent of OOPT.	
For MSLSCM:	
• An applicant who is a graduate of any bachelor's degree other than business with a CGPA of 2.75 out of 1.00 or 2.00 out of 4.00 or must have minimum work experience of one-year post-bachelor's degree in the specialized domain of the degree he is applying for. • An applicant who has a bachelor's degree in business programme that was not delivered in English, he/she will take OOPT and should get a passing score of at least 65 to enroll in the programme.	
Acceptance to the postgraduate programme as a transfer student depends on the following criteria:	
a. UTB requires as a matter of policy that a transfer postgraduate student is required to complete at least 50% of the required credit units/hours of a programme of residence at UTB. b. The maximum credit units/hours that are eligible for transfer credits should not exceed fifty percent (50%) of the required credits from the original degree from another university. ○ Capstone (Thesis) course is not eligible for credit transfer; the transfer student must take this course during his/her residency at UTB.	
15. CGPA Requirement for Graduation	
The required CGPA for a postgraduate student to be eligible for graduation is 3.0 out of 4.	
16. Career Pathways	
Graduates of t (MSLSCM) programme can pursue careers as supply chain managers, logistics coordinators, procurement managers, operations managers, inventory control specialists, transportation managers, warehouse managers, and demand planners. They may also work as consultants in supply chain optimization or lead sustainability initiatives within supply chain processes. Additionally, the programme opens pathways to leadership roles in industries such as manufacturing, retail, and distribution or pursuing further academic qualifications like a PhD or DBA in supply chain management or	

 University of Technology Bahrain	Doc. No.	QR-AAD-01
	Revision No.	01
	Date of Effectivity	01-09-23
College: College of Administrative and Financial Sciences		
MSLSCM PROGRAMME SPECIFICATIONS AY2024-2025		Page 5 of 8

related fields.

17. Curriculum Skills Map							
		Programme Learning Outcomes					
Course Code	Course Title	Core (C) Elective (E)	PILO1	PILO2	PILO3	PILO4	PILO5
CILO MAPPING TO PILO							
PM911	Principle of Logistics and Supply Chain Management	C	✓	✓	✓	✓	✓
PM912	Supply Chain Risk Management	C	✓	✓	✓	✓	
PM913	Green and Sustainable Logistics	C	✓	✓	✓	✓	✓
PM914	Introduction to Big Data for Supply Chain Management	C	✓	✓	✓	✓	
PM921	Supply Chain Strategy and Design	C	✓	✓	✓	✓	
PM922	Big Data Analytics	C	✓	✓	✓	✓	
PM923	Maritime Transportation Management	C	✓	✓	✓	✓	✓
RES911	Research Methods for Business	C	✓	✓	✓	✓	✓
PM999	Thesis Writing	C	✓	✓	✓	✓	✓
	ELECTIVES						
PM931	Strategic Supply Chain and Artificial Intelligence	E	✓	✓	✓	✓	✓
PM932	Logistics Cyber Security Compliance	E	✓	✓	✓	✓	✓
PM933	Supply Chain Modeling and Analytics Techniques	E	✓	✓	✓	✓	
PM934	Project Management	E	✓	✓	✓	✓	
PM935	Retail Logistics and Supply Chain Management	E	✓	✓	✓	✓	
PM936	Ethics and Sustainability	E	✓	✓	✓	✓	✓

	Doc. No.	QR-AAD-01
	Revision No.	01
	Date of Effectivity	01-09-23
College: College of Administrative and Financial Sciences		
MSLSCM PROGRAMME SPECIFICATIONS AY2024-2025		Page 6 of 8

**MASTER OF SCIENCE IN LOGISTICS AND SUPPLY CHAIN MANAGEMENT
CURRICULUM PLAN EFFECTIVE 2024-2025**

COURSE DESCRIPTION

Course Code	Course Title	Lec Hrs.	Lab Hrs	Units
PM911	Principle of Logistics and supply chain Management	3	0	3
This course explores the Introduction to the field of logistics and supply chain management. Includes development of logistics systems, careers in logistics, distribution planning, supply chain security, and customer service. Also includes roles and functions of purchasing, inventory control, physical distribution, warehousing, transportation methods, packaging, and customs.				
Course Code	Course Title	Lec Hrs.	Lab Hrs	Units
PM912	Supply Chain Risk Management	3	0	3
This course aims to give you an in-depth understanding of the fundamental principles of contemporary supply chain sustainability, resilience, and risk within a business context. This course provides a better understanding of key logistics and supply chain challenges and issues, with a focus on social, economic, and environmental considerations and environmental policies. It will help to understand how key stakeholders operate, regulate, decide, and function in the real world. It will identify priorities, reflect, and conceptualize green supply chain management / sustainable supply chain management together with risk and risk-resilience concepts in the context of business continuity against the key priorities of environment, economy, safety, public health, social inclusion, accessibility and integration.				
Course Code	Course Title	Lec Hrs.	Lab Hrs	Units
PM913	Green Logistics Management	3	0	3
This course deals with environmental logistics and refers to sustainable policies and measures focusing on lowering the impact logistics has on the environment. This includes the configuration of processes, structures, systems, and equipment used in the transportation, distribution, and warehousing of goods. Despite logistics not being known for a high level of sustainability as an industry, green logistics aim to gauge the carbon footprint of logistics operations, lower air, soil, sound, and water pollution, and use raw materials sensibly.				
Course Code	Course Title	Lec Hrs	Lab Hrs	Units
PM914	Introduction To Big Data for Supply Chain Management	3	0	3
This course is designed to explain the big data in logistics and the topics include collection, processing, and analysis of complex datasets related to logistics management operations. Further topics like use sensors, GPS devices, RFID tags, and enterprise resource planning (ERP) systems, data-driven business model and big data supply chain analytics will be taught. The course will help students to gain knowledge in areas such as monitoring of inventory levels, track shipments, identify potential disruptions, supply chain agility and responsiveness, predict equipment failures and maintenance needs, reduce downtime, increase equipment utilization, and extend the lifespan of assets.				
Course Code	Course Title	Lec Hrs	Lab Hrs	Units
PM921	Supply Chain Strategy and Design	3	0	3
This course delivers advanced knowledge of the strategy and design of supply chains. IT will discuss global case studies and learn how to apply supply chain design principles and explore approaches to supplier relationship management, procurement and customer service strategies.				
Course Code	Course Title	Lec Hrs.	Lab Hrs	Units
PM922	Big Data Analytics	3	0	3

This course aims to provide students with the new possibilities opened by the digital revolution and how these can be translated into the field of logistics and supply chain management. You will be exposed to several data analytic techniques, including data cleaning, data visualization, and dashboard development (using software) with a focus on application to global logistics and sustainability. More specifically the module will cover aspects such as, using Data Analytics in understanding the big data landscape; Data Processing; Data Visualization: telling a story; Analytical Tools: Descriptive, Predictive, Prescriptive and Cognitive; and Simulation/Network Analysis.

Course Code	Course Title	Lec Hrs.	Lab Hrs	Units
PM923	Maritime Transportation Management	3	0	3

This course explores Maritime transport (or ocean transport) or more generally waterborne transport, is the transport of people (passengers) or goods (cargo) via water ways. The Marine Transport Industry is defined as a system that ensures the successful movement of cargoes from one point to another through water modes, where their relative importance and economic value are greater. Logistics is that part of supply chain process that plans, implement and controls the efficient, effective flow and storage of goods, services and related information from the point of origin to the point of consumption in order to meet consumer's requirement. Thus, maritime transport and logistics is the hub of transporting goods across international lines. Therefore, a nation's economy and its viability depend mostly on the maritime transport sector.

Course Code	Course Title	Lec Hrs.	Lab Hrs	Units
RES911	Research Methods for Business	3	0	3

This course equips students with the skills to develop and undertake a research dissertation. It provides the theoretical and practical preparation for business research. The course covers the necessary skills and requirements for a literature review, qualitative and quantitative methods, and a research proposal in addition to the pragmatics of ethics and project management. Peer review, skill development workshops and practice exercises are the key learning strategies.

Course Code	Course Title	Lec Hrs	Lab Hrs	Units
PM999	Thesis Writing	12	0	12

This course provides graduate students with the opportunity to undertake a substantial, independent research project that addresses current issues, strategies, and innovations within the complex global business environment, with a focus on logistics and supply chain management. The course emphasizes the application of scientific research methodologies, critical analysis, and scholarly inquiry. Students are expected to formulate a research problem, conduct a comprehensive literature review, design and implement a research methodology, analyze data, and present their findings in a written thesis.

The course culminates in the submission and oral defense of a master's thesis, which serves as the capstone requirement for the Master of Science in Logistics and Supply Chain Management programme. The 12-credit allocation reflects the depth, scope, and academic rigor expected at NQF Level 9, aligning with international standards for graduate-level thesis work.

Course Code	Course Title	Lec Hrs	Lab Hrs	Units
PM931	Strategic Supply Chain and Artificial Intelligence	3	0	3

This course will provide the students with the prevalent techniques of Artificial Intelligence (AI) that are applied in logistics and supply chain management (SCM). Further the course will cover topics on the use of AI to formulate strategies in SCM and help students to know the use of potential AI techniques that can be employed in SCM. The course also will deal on how disruptive technologies such as Artificial

	Doc. No.	QR-AAD-01
	Revision No.	01
	Date of Effectivity	01-09-23
College: College of Administrative and Financial Sciences		
MSLSCM PROGRAMME SPECIFICATIONS AY2024-2025		Page 8 of 8

Intelligence (AI), blockchain and the Internet of Things (IoT), might affect the logistics sector and transform supply chains in the future.

Course Code	Course Title	Lec Hrs	Lab Hrs	Units
PM932	Logistics Cybersecurity Compliance	3	0	3

This course is designed to provide critical understanding of the current cyber security and data protection of logistics and supply chain. It will identify Introduction to cyber security and data protection fundamentals, Understanding the risks and impacts of threats, Key cyber security challenges in the logistics industry with case studies, Strategies for protecting business continuity and adopting solutions

Course Code	Course Title	Lec Hrs.	Lab Hrs	Units
PM933	Supply Chain Modelling and Analytics techniques	3	0	3

The course is designed in two parts. **Supply chain modelling:** This part aims to formulate key activities of the supply chain while emphasizing both the need for formulation and implementation. These include Networks and Routing Transportation models, Resource Allocation and Production Scheduling models, Inventory management models, Quality control models, and Project Management. **Analytics Techniques:** This part demonstrate how analytics techniques, such as Forecasting, Regression, Descriptive analytics, Probability and Decision Analysis and Optimization, can be applied to improve supply chains' efficiency and effectiveness by enabling data-driven decisions at strategic, operational and tactical levels.

Course Code	Course Title	Lec Hrs.	Lab Hrs	Units
PM934	Project Management	3	0	3

This course will provide details on the role of a project and project manager in logistics, supply chain and operations management, and the concepts and techniques required to manage the core aspects of a project. The main topics covered include fundamental theories, knowledge, and techniques required to manage projects in contemporary logistics, supply chain and operational setting. Drawing on contemporary project management research and business case studies on logistics, supply chain and operations, this course will develop your knowledge, skills, and confidence in managing projects in a global logistics and supply chain environment.

Course Code	Course Title	Lec Hrs	Lab Hrs	Units
PM935	Retail Logistics and Supply Chain Management	3	0	3

This course aims to give you an in-depth knowledge about retail organizations using SCM to control inventory levels, product quality, expenses, and timing. The course covers supply chain strategy that differentiates delivery terms and service offerings which are vital for optimizing the customer service and balance of cost with a focus on retail logistics and supply chain management.

Course Code	Course Title	Lec Hrs	Lab Hrs	Units
PM936	Ethics and sustainability	3	0	3

This course deals with immediate and long-term needs for sustainability in the economy, society, and environment. Business professionals who complete this course will have the necessary skills to manage and lead organizations more sustainably and ethically. The course will include ethical leadership, stakeholder management, professional ethics, and corporate social and environmental responsibility.