



University of Wollongong in Dubai

## **MASTER OF SCIENCE (LOGISTICS)**

### **Objective**

The Master of Science (Logistics) program is designed to provide professionals working within the logistics and operations management area with the skills to manage the flow of materials and information within and between organizations and their business environment. It incorporates both practical and theoretical aspects of logistics and supply chain management to assist managers in increasing business efficiency and advancing their individual careers.

This course will provide managers with the tools to effectively implement supply chain management, enhancing the competitive success and profitability of their organizations. Professionals and managers working within the logistics and operations management area will acquire the skills required to manage the flow of materials and information within and between organizations.

### **Why Study This Degree?**

In today's globalised business environment, the ability to develop and institutionalise supply chain and logistics systems competence is vital, to any organisations vision to maximise its competitive advantage through cost optimisation and customer satisfaction.

The introduction of the MSc. (Logistics) program at UOWD is timely, particularly within the Emirate of Dubai, as it seeks to establish an integrated multi-modal logistics hub as evidenced by the Jebel Ali Airport Project and the Dubai Logistics City (DLC) developments.

The Master of Science (Logistics) program enables students to demonstrate a command of wide-ranging, logistics related creative and conceptual skills. It allows the student an opportunity to analyze, diagnose and execute judgment across a broad range of logistics management functions.

The MSc (Logistics) program is structured so as to enable professionals in logistics to advance into positions of greater management responsibility and for those who have met the admission requirements to develop core competencies. The MSc (Logistics) program provides supply chain and operations related electives enabling practitioners to focus on key issues relevant to their field or working life.



## Summary

Duration of Course	<p>This course is normally 4 semesters in length.</p> <p>Candidates may only take more than 2 subjects per semester upon approval from the College Chair.</p> <p>Students on a University sponsored Visa must take at least 2 subjects per semester.</p>
Semesters / Intakes	<p>Autumn Semester: September-December          Spring Semester: January – April          Summer Semester: May – July          Intakes: Each semester</p>
Timing / Attendance	<p>Attendance is compulsory. Each subject requires one evening of attendance per week. Classes are held from 6.00pm – 10.00pm, Sunday to Thursday.</p>
Subjects	<p>8 Subjects – normally 2 per semester</p> <p>6 Core Subjects:</p> <ul style="list-style-type: none"> <li>• TBS908 Supply Chain Management</li> <li>• TBS912 Quantitative Methods for Decision Making</li> <li>• TBS928 Logistics System Management</li> <li>• TBS925 Inventory Management</li> <li>• TBS934 Logistics Information Systems</li> <li>• TBS918* Strategic Supply Chain Management</li> </ul> <p><i>*Capstone Subject</i></p> <p>2 Elective Subjects: Chosen from the following streams:</p> <p>Supply Chain Management Stream:</p> <ul style="list-style-type: none"> <li>• TBS927 Process and Change Management</li> <li>• TBS933 Procurement Management</li> </ul> <p>Operations Stream</p> <ul style="list-style-type: none"> <li>• TBS931 Manufacturing and Operations Strategy</li> <li>• TBS932 Service Operations Management</li> </ul>



Lecturers	All lecturers are PhD. qualified and have comprehensive business experience in the discipline.
Tuition Fees	6200 AED per subject. This equates to 49600 AED for the degree program.  <i>For more detailed information, please refer to the Postgraduate Fee and Refund Policy</i>
Method of Payment	Fees may be paid by cash, cheque or credit card prior to enrolment.
Admission Requirements	1. Have completed a recognized Bachelors Degree with a minimum CGPA of 3.0 / 4 average or its equivalent.
Probationary Admission Requirements	2. Students with a Bachelors Degree from a recognized University and a CGPA between 2.5 and 2.99 may be granted <b>probationary admission</b> .  Students on probation must take and complete two subjects in the first semester and must achieve a semester average score of B (60% at UOWD) in the two subjects taken to continue in the program.  If the student does not obtain a minimum average score of B (60% at UOWD) in the two subjects, the student will be dismissed and not be allowed to enrol again in this program.
Admission With Refresher Course Requirements	3. Students who meet the GPA requirements in Point 1 or the GPA & requirements in Point 2 but who have not successfully completed the following subjects (see list below) as part of their undergraduate degree will need to take (and successfully complete) the applicable foundation course subject(s) covering: <ul style="list-style-type: none"> <li>• accountancy,</li> <li>• finance,</li> <li>• marketing,</li> <li>• statistics and</li> <li>• operations management</li> </ul> as designed by UOWD and approved by the Commission for Academic Accreditation for the

	UAE Ministry of Higher Education and Scientific Research.
Mature Age Entry Requirements (Probationary Admission)	<p>To be considered for <b>Probationary Admission</b> under the Mature Entry Requirements a student must:</p> <ol style="list-style-type: none"> <li>1. Have completed a recognised Bachelor's Degree with a minimum GPA of 2.0 on a 4.0 scale or its equivalent; and</li> <li>2. Have completed a recognised Bachelor's Degree a minimum of eight (8) years prior to lodging their application for admission; and</li> <li>3. Have a minimum of four (4) years work experience, at least two (2) years of which must be in the relevant field of study</li> </ol> <p>Students granted <b>Probationary Admission</b> under the Mature Entry Requirements must satisfy the following:</p> <p>Students on probation must take and complete two subjects in the first semester and must achieve a semester average score of B (60% at UOWD) in the two subjects taken to continue in the program.</p> <p>If the student does not obtain a minimum average score of B (60% at UOWD) in the two subjects, the student will be dismissed and not be allowed to enrol again in this program.</p>
English Language Requirements	<p>IELTS: An overall band score 6.0 with a minimum score of 6.0 in Reading and Writing and 5.0 for each of Listening and Speaking.</p> <p>TOEFL: 213 (computer exam) or 550 (paper exam).</p>
Completion Requirements	<p>To qualify for award of the degree of Master of Science (Logistics) a candidate <b>must</b>:</p> <ul style="list-style-type: none"> <li>• accrue an aggregate of at least 48 credit points by completing and passing the required core and elective subjects, and</li> </ul>



	<ul style="list-style-type: none"> <li>achieve a cumulative grade point average of 3.0 / 4.0 (equivalent to 60% average at UOWD).</li> </ul>
<p>Application Procedures</p>	<p>The completed Application For Admission Form must include:</p> <p><u>Academic Documentation</u></p> <ul style="list-style-type: none"> <li>An Official transcript and an official Bachelor degree.</li> <li><b>Note:</b> If these are not in English, a certified English translation is required. Proof of English proficiency is required.</li> <li><b>Note:</b> Results from IELTS &amp; TOEFL tests must be sent to the University directly from the IELTS or TOEFL testing centers, quoting UOWD institution code (IELTS: AE109 / TOEFL: 7907).</li> </ul> <p><u>Administrative Documentation:</u></p> <ul style="list-style-type: none"> <li>4 passport photos.</li> <li>A certified copy of the passport and Residence Visa.</li> </ul> <p>When applicable, applications for Advanced Standing should be made at the time of application for admission along with :</p> <ul style="list-style-type: none"> <li>An Official Transcript from a recognized postgraduate program</li> <li>A detailed copy of the Course syllabus or subject outline.</li> </ul>
<p>Articulation</p>	<p>Students, who have completed courses in MAFB, MBA, MEM, MIB, MITM or MQM offered by UOWD, must meet the specific Admission Requirements of the (MSc. Log.) Program in order to articulate over. In such cases, where eligibility exists, these students can complete the (MSc. Log.) by completing 6 additional subjects.</p>

**Master of Science (Logistics): Subject Information**

**Core Subjects:**

**TBS 908 – SUPPLY CHAIN MANAGEMENT**

**6cp**

Core Subject: MSc Logistics  
Recommendation: Suitable for New and Current Students in MSc. Logistics  
Availability: Available for MBA, MIB, MEM, MITM or MQM Students

Supply Chain Management extends the study of logistics beyond the boundaries of a single organisation, and places particular emphasis on the interfaces between the 'chain' or 'network' of enterprises engaged in moving products, services, and information, from suppliers through intermediaries to end users/ consumers. The overarching framework around which the course content is organised is the Supply Chain Management

Performance/ Capability Continuum which has three critical components: operational excellence; supply chain integration and collaboration and virtual supply chains. The subject focuses on developing a supply chain strategy, something which many organizations still do not have in place even today. Channel relationships between processors, manufacturers, and distributors is also reviewed, particularly as leading organizations are now openly embracing more collaborative behaviour for mutual benefit. Supply Chain infrastructure and operations topics are reviewed, but more emphasis is given to information technology and systems, as these are the lifeblood of top-performing supply chain.

E-Commerce and the new supply chain business models it facilitates also receive significant attention, because this is where so much potential is still to be realised. Transformational change in supply chains is studied from two perspectives, i.e. realignment inside the supply chain itself, and new advanced forms of 'outsourcing'. Living in the Asia-Pacific it is important to understand the regionalisation of supply chains which is well underway, and in some cases, globalization.

**TBS 912 – QUANTITATIVE METHODS FOR DECISION MAKING**

**6cp**

Core Subject: MSC. Logistics  
Recommendation: Suitable for New and Current Students in MSc. Logistics  
Availability: Not available for MAFB, MBA, MIB, MITM, MQM, MSM or MSHRM Students

This subject focuses on the quantitative techniques available to managers in problem solving and decision making in businesses. The subject aims to develop in students the skills necessary for data analysis, model building and analysis for business decision-making. To this end the subject covers areas such as decision making under certainty and uncertainty, linear programming, transportation and transshipment techniques, project scheduling with certainty and uncertainty, waiting line models, goal programming, Analytic Hierarchy Process and simulations. In this subject, the emphasis will be on the analysis and interpretation of the results provided by the models.

**TBS 928 – LOGISTICS SYSTEM MANGEMENT 6cp**

Core Subject: MSc Logistics  
Recommendation: Suitable for Current Students in MSc. Logistics  
Availability: Not available for MAFB, MBA, MIB, MITM, MQM, MSM or MSHRM Students

Logistics Systems is an advanced course in logistics and supply chain management. It involves design and management of supply chain systems. It prepares students for logistics management positions in manufacturing, transportation and distribution firms. The application of analytical techniques and computer software to selected aspects of distribution management is explored in the course. Attention will be given to areas of network planning, inventory control, facility location, vehicle routing and scheduling of logistics systems. Mathematical models in these areas will be discussed in terms of their ability to represent the problem and usefulness to managers. Cases will be used to demonstrate the nature of decision making problems manager's face in logistics and supply chain management in contemporary business and class discussion will take place about the repercussions of alternative decisions.

**TBS 925 - INVENTORY MANAGEMENT 6cp**

Core Subject: MSc. Logistics  
Recommendation: Suitable for Current Students in MSc. Logistics  
Availability: Not available for MAFB, MBA, MIB, MITM, MQM, MSM or MSHRM Students

This subject aims to provide the student with state-of-the-art knowledge on inventory management theory and practice. Topics included will be as follows: materials management; management of storage and retrieval facilities; types of inventory problems; measuring inventory performance; inventory management systems for independent demand items; influence of forecasts and uncertainties in demand and lead time; dependent demand inventory systems; multi-echelon inventory management; decision models for inventory management; simulation models of inventory management systems, and case studies of world-class inventory management.

**TBS 934 - LOGISTICS INFORMATION SYSTEMS 6cp**

Core Subject: MSc. Logistics  
Recommendation: Suitable for Current Students in MSc. Logistics  
Availability: Not available for MAFB, MBA, MIB, MITM, MQM, MSM or MSHRM Students

This subject centres on how information technologies will transform the business landscape, with a particular emphasis on logistics and supply chains. Lectures highlight logistics management process analysis, value and productivity performance measurement of information technology investments, and the impact of ERP and RFID on supply chain strategy.



## **TBS 918 – STRATEGIC SUPPLY CHAIN MANAGEMENT**

**6cp**

Capstone Subject: MSc. Logistics  
Recommendation: Suitable for Students in last semester of MSc. Logistics  
Availability: Not available for MAFB, MBA, MIB, MITM, MQM, MSM or MSHRM Students

This subject extends the study of Supply Chain Management from the introductory study covered in TBS908. This subject examines the development of Organizational Strategy in the context of Supply Chain Management and the Supply Chain Management Performance/ Capability Continuum, which consists of three critical components - operational excellence, supply chain integration and, collaboration and virtual supply chains. The subject is aimed at providing an in-depth understanding of the latest practices to diagnose supply chain performance and develop supply chain strategies to support the overall business strategy.

### **ELECTIVE SUBJECTS:**

#### **(A) SUPPLY CHAIN MANAGEMENT STREAM**

### **TBS 927 – PROCESS AND CHANGE MANAGEMENT**

**6cp**

Recommendation: Suitable for Current Students in MSc. Logistics  
Elective: MSc. Logistics Students only  
Availability: Not available for MAFB, MBA, MIB, MITM, MQM, MSM or MSHRM Students

This course combines the process reengineering and change management. The topics covered in this context include mass customization, business process reengineering, and change management for process change. Cases are studied to provide a unifying theme in terms of organizational change, supply chain reengineering and integration aspects.

### **TBS 933 – PROCUREMENT MANAGEMENT**

**6cp**

Recommendation: Suitable for Current Students in MSc. Logistics  
Elective: MSc. Logistics Students only  
Availability: Not available for MAFB, MBA, MIB, MITM, MQM, MSM or MSHRM Students

The primary aim of this course is to get students interested in and acquainted with the fundamental concepts, models and instruments in purchasing management. Key areas like buying supplies, logistics, contracts, stock and inventory control will be covered. Some insights into the current developments and biggest problem areas in this field are provided. A combination of informative and interactive lectures and case assignments will be used for the pedagogy and considerable attention is devoted to the discussion of practical / managerial issues.





## **(B) OPERATIONS STREAM**

### **TBS 931: MANUFACTURING & OPERATIONS STRATEGY 6cp**

Recommendation: Suitable for Current Students in MSc. Logistics  
Elective: MSc. Logistics Students only  
Availability: Not available for MAFB, MBA, MIB, MITM, MQM, MSM or MSHRM Students

This course combines manufacturing and operations strategies in matching the characteristics of the operations function with the requirements of the manufacturing in order to fulfill the needs of the customer. A proper appreciation of this process requires not merely an understanding of the ideas and methods used to develop an operations strategy but also knowledge of the techniques and principles involved in its implementation.

### **TBS 932 - SERVICE OPERATIONS MANAGEMENT 6cp**

Recommendation: Suitable for Current Students in MSc. Logistics  
Elective: MSc. Logistics Students only  
Availability: Not available for MAFB, MBA, MIB, MITM, MQM, MSM or MSHRM Students

The purpose of this subject is to provide the student with an understanding of the basic issues, concepts, methods, tools and some quantitative models in Service Operations Management (SOM). The subject is designed for students with no previous study in Service Operations Management but aims to develop an understanding and level of skill commensurate with postgraduate study, though at an introductory level rather than that required by a professional service operations manager. Students will develop an understanding of the significance of SOM to the success or failure of a business, analyse the key activities involved in SOM and apply the different tools and techniques used by Service Operations Managers.