

**SUMMER
2024
WEEKS 4-6**



Supply Chain Management ULMS076

Credit Value	Delivery	Contact Hours Per module	Self-Directed Hours Per module	Total Hours Per module
5 UoL credit, 2.5 ECTS	On-campus	12-16	34-38	50

Module Leader: Ali Taghizadegan

Ali Taghizadegan is currently working as a full time Operations Manager at Paragon Scientific while he is completing his PhD in Operations and Supply Chain Management context. He is specialised in Enterprise Resource Planning (ERP) system, Lean Management and Leadership. He has +10 years experience in training and consulting SMEs in manufacturing and service industry. He has also taught postgraduate students in Lean Thinking, Operations Modelling and Simulation, and Business Analysis. His research interests embrace the identification of the processes in gaining a successful Collaborative Innovation, Business Model, Absorptive Capacity in the context of SMEs

Module Description

Supply chain management (SCM) has gained substantial attention in the last two decades due to globalisation and the advancement in information technology. In the contemporary business environment the nature of competition is now shifting from competing enterprises to competing supply chains. Therefore, effective management of supply chain is at the heart of business operation within an enterprise. This module intends to provide students with a deep understanding of key concepts, principles, theories, and best practices of operations and supply chain management particularly focussing on two core and fundamental elements, lean and agile operations. The course will develop and advance students' critical analysis and evaluation of lean, agile, and leagile operations and their application in the real business environment and the importance role of supply chain decision on the success of a firm.

Module Aims:

To develop confidence in understanding and communicating complex ideas.

To develop skills in research, collaborative learning and producing and delivering presentations.

To introduce students to the key concept of operations and supply chain management including the important principles, techniques, and tools of lean, agile and leagile operations.

To introduce students to the concept of functional and innovative products and how to apply the right type of operations and supply chain for respective products.

To introduce students to the key concept of buy or make

Content

The following topics will be considered on the module:

What are operations and supply chain management and their different types and strategy?

What are lean thinking and its tools and techniques?

What are agile and leagile operation and its techniques?

What are functional and innovation products? What are their characteristics? What are their appropriate operations?

Workshop (Lean simulation game (Lego game), bullwhip effect, and beer game)

What are strategic purchasing and its elements? (buy vs. make)

Module Structure

The module will be delivered over a three-week period in six two hour sessions (four hours per week, total 12 hours contact time). The final block will be an assessment session.

Each session will consist of short lecture style sessions interspersed with case studies and group discussions. The lecturer will demonstrate the approaches used in Operations and Supply Chain Management and students will have a number of opportunities to put what they are learning into practice with their classmates. Students will be expected to participate fully and actively throughout the sessions.

In addition, it is expected that students will spend 34-38 study hours outside of the classroom contact hours on activities including assigned reading, optional reading of areas of personal interest, homework tasks, web research and preparation for assessment. The 'flipped classroom' approach will be used, requiring students to prepare in advance for the sessions. Students should be aware that in order to fully benefit from the face-to-face classroom sessions, the preparation work assigned should have been done prior to the lecture.

Teaching Methods

The teaching approach will include the following:

Taught sessions

Flipped classroom – preparation work

Small group working
Group discussions
Presentations
Online learning
Use of multimedia and interactive materials
Use of case studies
Workshops

Assessment:

Assessment will be by:

Written essay/reflection of 1000–1200 words (worth 100% of the overall mark)

Standard University policies apply with regard to late submission of assessments

Course Structure:

The course will be practical in nature, with the sessions highly focussed on giving the students as much practical experience as possible, and encouraging them to put theory into practice throughout.

The indicative schedule is as follows:

Session One:

What is operation and supply chain management?

The course will begin with some general information about the module and its aims and assessment. Then it moves on to consider the definition and goal of supply chain and explain the impact of supply chain decision on the success of a firm. Also to identify the three key supply chain decision phases and explain the significance of each one.

Student activity: Case study analysis and its implications on actual life.

Session Two:

Lean thinking and its tools and techniques

This session will introduce students to the notion of push/pull operations in supply chain and their characteristics. The lecture will also cover the five key principles of lean in operations management and the analysis of benefits and limitation of a lean approach. The seven causes of waste, the 5S principles and the role of Kaizen context will be explained in details.

Student activity: Case study analysis and group discussion.

Session Three:

Agile, leagile, and functional vs innovative products.

Students will be introduced to the concept of agile and leagile operations and their characteristics and application in supply chain. Also the functional and innovative products including their characteristics and appropriate operations will be explained.

Student activity: students will be grouped and a case study will be given to them to analyse and

evaluate.

Session Four:

Lean Thinking Workshop (Lego game, Beer game, and bullwhip effect)

Students will have the opportunity to apply the theory of lean thinking into practice through the Lego simulation game. The game will run in three rounds, which simulate push and pull operations via simulating a pizza manufacturing. For each round, students will be able to measure lead-time, work in progress (WIP), seven wastes and service level. Therefore, before each round, they will be given an opportunity to make decisions in order to improve the service level. Beer game and bullwhip will also be explained.

Student activity: students will be grouped and play the game.

Session Five:

Strategic purchasing, Buy vs. make

Students will be introduced to the notion of purchasing and supply strategy. Also the decision to make or buy, the role of contract and/or relationship, and buyer and supplier relationship will be explained.

Student activity: case study analysis and group discussion.

Session Six:

Group discussion of Lego game and case studies

In this final session the students will be given an opportunity to reflect their understanding and knowledge of Supply Chain through Lego game and some real world case studies in the Supply Chain context including Zara and Aldi. The students will be grouped and will discuss the Lego game and the case studies in order to realise what they have learnt during the course and how it can be applied in the real business world environment.

Learning Outcomes:

On completion of this module, students will be able to:

Learning outcome	Assessment component which assesses this learning outcome
Research, find, select, and present relevant facts and information in order to support the argument and findings	Written essay/reflection
Compare and discuss various scholars' works and opinions and express their own point of view coherently, logically, and concisely. Thus, students will be able to develop their self-confidence and initiative as well as written communication skills.	Written essay/reflection

Demonstrate a general understanding of key concepts and principles of supply chain strategy including lean tools and techniques, agile and leagile operations, and make vs. buy. Also to analyse and evaluate the right supply chain strategy for a product.	Written essay/reflection
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Skills:

Key skills that will be developed:

Skill	How this skill is developed	Mode of assessment
Collaboration and Teamwork	Group discussions, activities and case studies in class	Class group discussion
Communication	Orally in group discussions, activities and tasks in class, in writing by production of assessed assignment	Written essay/reflection
Academic skills	Academic writing will enable the students to improve and develop their intellectual skills including intellectual initiative, critical reflection, the ability to gather, assess, analyse and organise various data, problem solving, and marshal arguments coherently and concisely	Written essay/reflection
Organisational Skills	Tasks will assist the students to improve and develop their organisational skills including self-direction, self-discipline, to work under pressure and to meet deadlines, and management of time and resources.	Written essay/reflection
Research Skills	will enhance students' research skills including the ability to search through various academic sources,	Written essay/reflection

	find relevant facts and data, paraphrasing and bibliography.	
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Books, ebooks and websites:

The University Website at www.liv.ac.uk/library provides access to many relevant books and electronic books, as well as academic journals and databases.