

# LOG365 Digital Twin for Supply Chains

**Level:** 3

**Credit Units:** 5 Credit Units

**Language:** ENGLISH

**Presentation Pattern:** EVERY JULY

## Synopsis:

A digital twin is a virtual model of a process, product or service. Imagine a digital twin as the bridge that links the physical and digital world. LOG365 Digital Twin for Supply Chains equips students with the knowledge and digital skills to develop and apply digital twins to solve supply chain problems before they occur, minimise downtime and plan for the future. The course covers concepts, inputs and outputs, and techniques to set up the digital twin. We look at digital twin applications in warehouse, transport and port terminal operations as well as value-added service in the supply chain. Lessons learned from the virtual world can be applied to the physical world to transform the supply chain.

## Topics:

- Innovation in Supply Chains
- Digital Twin Concepts
- Digital Twin Input Analysis
- Digital Twin Output Analysis
- Warehouse Operations and Automation Resources
- Warehouse Digital Twin Hands-on Session
- Transport Operations and Automation Resources
- Transport Digital Twin Hands-on Session
- Port Operations and Automation Resources
- Port Digital Twin Hands-on Session
- Value-Added Services in Supply Chains
- Digital Twin Best Practices

## Learning Outcome:

- Demonstrate the innovation and digital twin applications in supply chains.
- Analyse the inputs and outputs of digital twins.
- Examine a digital twin for warehouse operations and automation.
- Set up a digital twin for transport operations and automation.
- Design a digital twin for port operations and automation.
- Illustrate the value-added services and digital twin best practices for supply chains.

## Assessment Strategies (Daytime Class):

Components	Description	Weightage Allocation (%)
Overall Continuous Assessment	PRE-COURSE QUIZ 1	2
	PRE-CLASS QUIZ 1	2

Overall Continuous Assessment	PRE-CLASS QUIZ 2	2
	TUTOR-MARKED ASSIGNMENT 1	18
	GROUP BASED ASSIGNMENT 1	20
	PARTICIPATION 1	6
Overall Examinable Components	ECA-REPORT	32.50
	ECA-VIDEO	12.50
	ECA-POWERPOINT	5
<b>Total</b>		<b>100</b>