

ICDL Insights

INTERNET

of THINGS

Syllabus 1.0



Syllabus Document



Purpose

This document details the syllabus for ICDL Insights – Internet of Things. The syllabus describes, through learning outcomes, the knowledge and skills that a candidate for ICDL Insights – Internet of Things should possess. The syllabus also provides the basis for the theory and practice-based test in this module.

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ICDL Insights – Internet of Things

This module introduces the Internet of Things (IoT), which extends Internet connectivity from computers and related devices to other physical devices or common objects and leverages from technologies such as embedded systems, wireless sensors, and automation.

Internet of Things is an ICDL Insights module, which addresses the requirement for current and future business managers to develop an understanding of trending and emerging technology.

Module Goals

Successful candidates will be able to:

- Understand key concepts relating to Internet of Things (IoT), including common structure and requirements.
- Recognise examples of consumer, commercial, industrial, and infrastructural applications of IoT.
- Identify current trends in IoT, including the evolution of IoT components and the important role played by governance.
- Understand ethical, security, and interoperability considerations around adoption of IoT, and consider how IoT could be implemented in a given scenario.

CATEGORY	REF.	TASK ITEM
1 What is IoT	1.1	Define the term Internet of Things (IoT).
	1.2	Recognise the common structure of an IoT system: application, data processing, network, sensing.
	1.3	Identify physical components of an IoT system.
	1.4	Identify processing requirements in an IoT system.
	1.5	Recognise the origins and development of IoT.
2 IoT Examples	2.1	Recognise common examples of consumer and commercial IoT applications.
	2.2	Recognise common examples of industrial IoT applications.
	2.3	Recognise common examples of infrastructural IoT applications.
3 Trends in IoT	3.1	Recognise physical trends in the evolution of IOT like: miniturisation, ubiquity, scale.
	3.2	Recognise the increasing role of governance in the design of IoT systems.
4 IoT Adoption	4.1	Understand key ethical considerations that must inform adoption of IoT systems like: decision making, privacy.
	4.2	Understand security risks associated with adopting IoT systems.

CATEGORY	REF.	TASK ITEM
	4.3	Be aware of common interoperability challenges that may impact adoption of IoT systems.
	4.4	Consider the possible structure of an IoT system that could be implemented in a given scenario.