List of Competencies for On-the-Job Training (OJT)
Work-Study Diploma in Agriculture & Aquaculture Technology

S/N	List of Competencies (Standard)	Company to indicate '✓' for OJT competencies it can provide
1	Manage automation systems	☐
2	Interface systems with Internet of Things	☐
3	Perform predictive maintenance	☐
4	Set up artificial intelligence system	☐
5	Optimise farming parameters	☐
6	Implement artificial intelligence devices for automated farming	☐
7	Perform administrative formalities	☐
8	Manage agribusiness supply chain	☐
9	Manage waste disposal and system	☐
10	Monitor water quality	☐
Select one of the following groups:		
	A: Agriculture Technology	
11A	Optimise urban farming system and operation	☐
12A	Manage agriculture equipment and systems	☐
13A	Perform periodic maintenance on agriculture equipment and systems	☐
14A	Perform planting media testing and analysis	☐
15A	Implement plant nutrition program	☐
16A	Perform crop health diagnosis / Develop health management programme *	☐
17A	Perform control methods to treat crop disorders	☐
18A	Perform crop curation / Manage crop inventory / Perform crops preparation *	☐
19A	Prepare growing media on site for planting	☐
----OR---		
	B: Aquaculture Technology	
11B	Optimise aquaculture system and operation	☐
12B	Manage aquaculture equipment and systems	☐
13B	Perform periodic maintenance on aquaculture equipment and systems	☐
14B	Perform fish care	☐
15B	Perform optimised feeding	☐

S/N	List of Competencies (Standard)	Company to indicate '✓' for OJT competencies it can provide
16B	Perform fish growth operations	☐
17B	Evaluate fish health and diseases	☐
	----OR---	
	C: Poultry Egg Farm	
11C	Optimise poultry system and operation	☐
12C	Manage egg farming systems	☐
13C	Perform periodic maintenance on egg farming systems	☐
List of Competencies (Company-specific)		
1		
2		
3		
4		
5		
	Sub-total of Competencies (Company-specific)	0

* Delete if not applicable

Note:

a) Company must be able to provide OJT for at least **75%** of the List of Competencies (Standard).

b) If company is unable to meet the 75%, please propose alternate **course-related** competencies which are unique to company operations. Alternate competencies are capped at 25%.
[i.e. 50% of the list of competencies (standard) + 25% alternate competencies (Company-specific)].

c) All alternate competencies (Company-specific) must be reviewed and endorsed by ITE.

d) Trainees must receive OJT and be assessed for **All** competencies selected in this List.

	Group A			Group B			Group C		
	Standard	Company-Specific	Total	Standard	Company-Specific	Total	Standard	Company-Specific	Total
Total no. of competencies selected by company for OJT	0	0	0	0	0	0	0	0	0
Total no. of competencies listed (standard & company specific)	19			17			13		
Percentage of selected competencies	0%	0%	0%	0%	0%	0%	0%	0%	0%

Completed By:

_____ _____

Name **Company**

MODULE SYPNOSIS – WSDip in Agriculture & Aquaculture Technology

Course Objective

This course equips trainees with skills and knowledge to automate and manage urban agriculture and aquaculture systems with the deployment of sensors & control systems, robotics, Internet-of-Things, information technology and data analytics to achieve highly productive, innovative and sustainable agri-food industry.

Modules Synopsis

Crop Curation & Inventory
On completion of the module, trainees should be able to perform crop curation and inventory, manage selection of indoors and outdoors edible and non-edibles. Trainees should also be able to identify activities of supply chain, perform technologies on traceability of fresh farm produce, and implement methods to collect, catalogue and maintain seed stock for future.
Crop Health Management
On completion of the module, trainees should be able to diagnose crop health disorders and determine common plant diseases and pests. Trainees should also be able to develop crop health management programme to treat crop disorder, determine acceptable level and economic threshold level for the responsible use of pesticides.
Urban Farming Systems & Technologies
On completion of the module, trainees should be able to determine different types of agricultural farms and design involved in urban agriculture. Trainees should also be able to perform resource optimisation, manage farming operations and sustainability.
Fish Care & Growth Management
On completion of the module, trainees should be able to identify parameters affecting the growth and health of the fish. Trainees should also be able to identify feed and nutritional requirement at different stages of life cycle.
AgriFood & Nutrient Management in Farm
On completion of the module, trainees should be able to perform soil, media testing, and analysis to meet international food standards for organic certification as well as regional variation in standards. Trainees should also be able to analyse fish nutrients based on feeding program.
Agriculture 4.0 (mechanisation & automation in modern farm)
On completion of the module, trainees should be able to perform mechanical automation farming processes such as seeding, harvesting and watering operations to improve the efficiency of urban farm. Trainees should also be able to interface systems using Internet of Things (IoT) and perform predictive maintenance using augmented reality (AR).
Poultry Egg Farm Systems
On completion of the module, trainees should be able to perform key poultry farming operations such as transporting and sorting through mechanical automation and poultry farming waste maintenance.

MODULE SYPNOSIS – WSDip in Agriculture & Aquaculture Technology

Aquaculture Systems & Technologies

On completion of the module, trainees should be able to identify common fish, crustaceans, aquatic plants, algae and other organisms in water for aquaculture farm operation and maintenance..

Precision Farming

On completion of the module, trainees should be able to apply technologies such as artificial intelligence devices and use data to manage a farm for optimal performance in terms of growth, process and yield in traceability.

Water Quality & Diseases Management

On completion of the module, trainees should be able to monitor and analyse water quality parameters and how it would impact the fish growth as well as the aquaculture systems. Trainees should also be able to determine different types of water and aquaculture system treatment, diagnostic techniques used to identify common aquatic diseases and parasites and manage waste disposal and system in the farms.

Company Project

On completion of the module, trainees should have applied their acquired competencies in an authentic project that would value-add to the company.

TRAINING PATTERN SCHEDULE

WSDip in Agriculture & Aquaculture Technology

Hybrid Release - Trainees attend daily lessons at ITE for a continuous period at the start, and after will attend lessons for one day per a week and spend the remainder of the work-week at the workplace for OJT.

April'26 Intake	April – June 2026	ITE Vacation (June) 4 weeks	July – September 2026	ITE Vacation (Sept) 2 weeks	October – December 2026	ITE Vacation (Dec) 4 weeks	January – March 2027	ITE Vacation (March) 2 weeks
1st Year Off-JT @ ITE	**2 weeks block followed by 1 day / week**		**1 day/week**		**1 day/week**		**1 day/week**	
April'26 Intake	**April – June 2027**	ITE Vacation (June) 4 weeks	**July – September 2027**	ITE Vacation (Sept) 2 weeks	**October – December 2027**	ITE Vacation (Dec) 4 weeks	**October – December 2028**	ITE Vacation (March) 2 weeks
2nd Year Off-JT @ ITE	**1 day/week**		**1 day/week**		**1 day/week**		**1 day/week**	
April'26 Intake	**April – June 2028**	ITE Vacation (June) 4 weeks	**July – September 2028**	ITE Vacation (Sept) 2 weeks	**WSDip Programme 2026** **Start: 1 April 2026** **End: 30 September 2028** **Duration: 2.5 years** ⚠️ **Final results release may be later than programme end date**			
3rd Year Off-JT @ ITE	**1 day/week**		**1 day/week**					