

**List of Competencies for On-the-Job Training (OJT)
Work-Study Diploma in Vertical Transportation**

Applicants applying for this course must be free from colour appreciation deficiency. A score of 100% from the Colour Blindness Test is mandatory for course admission.

S/N	List of Competencies (Standard)	Company to indicate '✓' for OJT competencies it can provide
1	Implement safe work procedures	
2	Perform workplace safety and health inspection	
3	Eliminate unsafe work practices	
4	Maintain machine room equipment	
5	Maintain landing equipment	
6	Maintain lift car equipment	
7	Maintain hoistway equipment	
8	Maintain lift pit equipment	
9	Maintain lift safety equipment	
10	Maintain traction machine	
11	Maintain lift controller	
12	Maintain emergency devices	
13	Maintain lift car systems	
14	Maintain hall & hoistway systems	
15	Maintain lift pit systems	
16	Coordinate lift/escalator installation works	
17	Evaluate readiness of lift hoistway	
18	Supervise lift/escalator equipment installation works	
19	Plan lift/escalator maintenance schedule	
20	Manage work schedule, project timelines and site crew	
21	Facilitate mandatory inspection by relevant government authorities	
22	Check motor drives and micro-controller application	
23	Check printed circuit board (PCB) and electronics components	
24	Troubleshoot electronics faults	
25	Maintain escalator/moving walk systems	
26	Supervise inspection and testing of escalator/moving walk systems	
27	Evaluate compliance of escalator/moving walk systems	
28	Prepare documentation for lift inspection and testing	

S/N	List of Competencies (Standard)	Company to indicate '✓' for OJT competencies it can provide
29	Supervise inspection and testing of lift system	
30	Evaluate compliance of lift system	
31	Coordinate with relevant parties on lift/escalator incident	
32	Evaluate cause(s) of lift/escalator incident	
33	Prepare lift/escalator incident report	
34	Conduct lift traffic analysis	
35	Apply advanced lift/escalator technologies	
36	Troubleshoot serious lift/escalator fault	
	Sub-total of Competencies (Standard)	
List of Competencies (Company-specific)		
1		
2		
3		
4		
5		
6		
7		
8		
9		
	Sub-total of Competencies (Company-specific)	

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.

Total no. of competencies selected by company for OJT

--

Total no. of competencies listed (*standard & company specific*)

--

Percentage of selected competencies

--

Completed By:

Name

Company

MODULE SYNOPSIS – WSDip in Vertical Transportation

Course Objective

This course will equip trainees with the skills, competencies and knowledge to perform high-level lift maintenance, servicing, inspections and fault diagnostics, as well as manage and supervise new lift installation or upgrading projects, in compliance with all relevant standards, regulations and codes of practice.

Modules Synopsis

Lift Safety and Orientation

On completion of the module, trainees should be able to implement strategies and processes to ensure all works comply with requirements of the Workplace Safety and Health (WSH) Act, which would include environmental management, explosion protection, fire protection, chemical hazard management, material handling, Personal Protective Equipment (PPE), risk management and work at height.

Lift Mechanical System

On completion of the module, trainees should be able to perform repair and diagnostic of mechanical system in lift, including motors, braking gears, buffers, cables, lift controller, counterweight, doors, door mechanisms, drive sheaves, guide rails, landing equipment, lift car, overspeed governor, roping system, safety/arresting gear and traction machine.

Escalator Technology

On completion of the module, trainees should be able to interpret technical requirements and engineering drawings of escalator system, and perform basic maintenance in compliance with relevant specifications, regulations and codes of practice.

Lift Electrical System

On completion of the module, trainees should be able to perform repair and diagnostic of electrical system in lift, including motors, traction machine, electrical supply, power quality, electrical controls, safety gear, predictive failure for buffer, door safety devices, door mechanisms, emergency battery operated power supply, automatic rescue devices, transducers, overspeed governor and safety/arresting circuits.

Lift and Escalator Installation

On completion of the module, trainees should be able to interpret technical requirements and engineering drawings for new lift and escalator installation. They should also be able to supervise installation work according to contract requirements, and in compliance with relevant specifications, regulations and codes of practice.

Lift and Escalator Maintenance

On completion of the module, trainees should be able to interpret technical requirements and engineering drawings for lift and escalator maintenance. They should also be able to plan, schedule and supervise preventive and corrective maintenance works according to contract requirements, and in compliance with relevant specifications, regulations and codes of practice.

Lift Electronics and Controls

MODULE SYNOPSIS – WSDip in Vertical Transportation

On completion of the module, trainees should be able to troubleshoot electronics and controls in lift, including field bus and equipment - lift controller, display indicators, communication and intercom, fire/BMS link interface and group control.

Lift and Escalator Inspection and Testing

On completion of the module, trainees should be able to schedule and conduct interim inspection prior to testing. They should also be able to prepare records for commissioning and supervise annual load test according to contract requirements, and in compliance with relevant specifications, regulations and codes of practice.

Incident Investigation and Technical Communication

On completion of the module, trainees should be able to communicate, liaise and coordinate with client and external agency/authority in the event of a lift incident. They should also be able to investigate and identify cause(s), and prepare lift incident report.

Lift Traffic Pattern Analysis

On completion of the module, trainees should be able to conduct lift traffic analysis, identify problem in lift control and operation, and recommend solution to improve lift operation and traffic pattern to client.

Application of Smart Technology

On completion of the module, trainees should be able to acquire and apply knowledge and skills in IT, virtual reality and augmented reality solution to improve productivity.

Advanced Lift and Escalator Technologies

On completion of the module, trainees should be able to apply fundamental knowledge of lift and escalator technology and their operations, including major lift and escalator systems/components, as well as relevant statutory regulations. In addition, trainees should be able to diagnose, troubleshoot serious lift fault with the aid of event log, schematic diagram and specialised instrument

Supervisory Skills & Project Management

On completion of the module, trainees should be able to interpret technical and maintenance requirements in contracts for lift and escalator, plan lift/escalator maintenance schedule according to contract requirements, and in compliance with relevant specifications, regulations and codes of practice. They should also be able to manage work schedule, project timelines and site crew including facilitate mandatory inspection by relevant government authorities.

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

On-the-Job Training

On completion of the module, trainees should be able to apply the skills and knowledge acquired at ITE College and workplace to take on the full job scope, including supervisory function, where appropriate, at the company.

TRAINING PATTERN SCHEDULE

WSDip in Vertical Transportation

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					