

**List of Competencies for On-the-Job Training (OJT)
Work-Study Diploma in Aircraft Engine Maintenance**

Note: LOC is subject to changes due to curriculum review/ development

S/N	List of Competencies (Standard)	Company to indicate '✓' for OJT competencies it can provide
Common Competencies (min 6 competencies)		
1	Inspect aircraft engine parts and components	
2	Perform chemical and mechanical cleaning on engine parts and components	
3	Perform measurement on aircraft engine parts and components	
4	Handle aircraft engine received from customer	
5	Disassemble aircraft engine	
6	Assemble aircraft engine	
7	Dispatch aircraft engine to customer	
8	Set up automated system for maintenance of aircraft engine parts and components	
9	Perform automated operations on engine parts and components	
Compulsory to select ONE or more of the four specialisations		
Non-Destructive Testing Specialisation (min 3 competencies)		
10	Perform fluorescent penetrant testing	
11	Perform eddy current testing	
12	Perform ultrasonic testing	
13	Perform magnetic particle inspection	
Engine Repair Specialisation (min 2 competencies)		
14	Repair aircraft engine sheet metal structure	
15	Repair aircraft engine composite material components	
16	Perform surface protection on engine parts and components	
Machining & Hot Work Specialisation (min 2 competencies)		
17	Perform machining on engine parts and components	
18	Perform tungsten inert gas (TIG) welding	
19	Perform hot processes on engine parts and components	
Electrical Specification (min 2 competencies)		
20	Inspect aircraft engine electrical system	
21	Perform aircraft engine electrical system maintenance	

S/N	List of Competencies (Standard)	Company to indicate '✓' for OJT competencies it can provide
22	Prepare aircraft engine electrical components for repair	
	Sub – total of Competencies (Standard)	
List of Competencies (Company-specific)		
1		
2		
3		
4		
	Sub-total of Competencies (Company-specific)	

* The company is required to select one or more specialisations for the OJT module, with a minimum total number of 12 competencies. If the company cannot provide the full 12 competencies, including those from chosen specialisation(s), they have the option to select additional competencies from other specialisations or supplement them with their own company-specific competencies.

Note: Competencies proposed by company must be endorsed by ITE.

Total no. of competencies selected by company for OJT

Completed By:

Name

Company

Designation

Date

For ITE's Completion			
Reviewed by CED / College <i>(For Company-specific Competencies)</i>			Verified by IBT Officer
Name:			Name & Date:
Designation:	Date:		

Version: April'24

WORK-STUDY DIPLOMA IN AIRCRAFT ENGINE MAINTENANCE

MODULE OBJECTIVES

Module 1: Aircraft Engine Structure Maintenance

On completion of the module, trainees should be able to repair sheet metal structure and aircraft composite material components as well as performing tungsten inert gas (TIG) welding to repair component defects.

Module 2: Aircraft Engine Components Inspection

On completion of the module, trainees should be able to inspect aircraft engine components, perform chemical and mechanical cleaning on engine components, and perform measurements on aircraft engine components.

Module 3: Aircraft Engine Electrical System Maintenance

On completion of the module, trainees should be able to inspect aircraft engine electrical system, perform aircraft engine electrical system maintenance and prepare aircraft engine electrical components for OEM repair in accordance with statutory and organisational requirements.

Module 4: Non-Destructive Testing

On completion of the module, trainees should be able to perform various non-destructive testing (NDT) methods to detect defects in aircraft engine components.

Module 5: Aircraft Engine Maintenance Operation

On completion of the module, trainees should be able to handle aircraft engine received from customer, disassemble and assemble modules and parts of aircraft engine, and dispatch serviced aircraft engine to customer.

Module 6: Aircraft Engine Component Repair Operations

On completion of the module, trainees should be able to perform machining, electroplating and hot processes such as heat treatment, fluorocarbon cleaning, vapour aluminising to repair engine parts.

Module 7: Aircraft Engine Maintenance & Automation

On completion of the module, trainees should be able to set up and perform automated systems for thermal spray, polishing and laser welding on engine parts.

Module 8: 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.

Module 9: 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.

WSDip in Aircraft Engine Maintenance

TRAINING PATTERN (BLOCK RELEASE)

Year	Block Training at ITE	No. of Weeks Off-JT
1 (April – Mar)	8 weeks (April – May) 2 weeks (March of following Year)	10 weeks
2 (April – Mar)	8 weeks (Sept - Nov) 2 weeks (Feb of following Year)	10 weeks
3 (April – Oct)	7 weeks (June – August)	7 Weeks