

**List of Competencies for On-the-Job Training (OJT)  
Work-Study Diploma in AI & Data Intelligence (AI Specialisation)**

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
<b>Develop program codes</b>		
1	Create program logic	
2	Write program codes	
3	Debug program	
<b>Manage compliance to governance processes</b>		
4	Analyse relevant data and AI governance principles	
5	Implement data guidelines and AI ethics principles	
6	Manage non-compliance incidents	
<b>Perform data analysis and visualisation</b>		
7	Perform data processing	
8	Perform data visualisation	
9	Perform data analysis	
<b>Perform data preparation</b>		
10	Inspect data quality	
11	Perform feature extraction	
12	Prepare Train-Test-Validate subsets	
<b>Design and develop AI model</b>		
13	Analyse AI model requirements	
14	Build AI model	
15	Fine-tune AI model	
<b>Develop ML pipeline workflow</b>		
16	Design modular pipeline	
17	Automate pipeline workflow	
18	Debug workflow issues	
<b>Deploy AI operations</b>		
19	Design AI operation flow	
20	Implement AI operation	
21	Evaluate AI operation performance	

S/N	List of Competencies (Standard)	Company to indicate '✓' for OJT competencies it can provide
<b>Deliver AI solutions</b>		
22	Analyse business/ operating environment	
23	Deploy model/ pipeline workflow	
24	Implement ML system	
	<b>Sub-total of Competencies (Standard)</b>	
<b>List of Competencies (Company-specific)</b>		
1		
2		
3		
4		
5		
6		
	<b>Sub-total of Competencies (Company-specific)</b>	

**Note:**

- Company must be able to provide OJT for at least **75%** of the List of Competencies (Standard).
- 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)].
- All alternate competencies (Company-specific) must be reviewed and endorsed by ITE.
- 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**

\_\_\_\_\_  
**Designation**

\_\_\_\_\_  
**Date**

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

*Version: June'23*

# WORK-STUDY DIPLOMA IN AI & DATA INTELLIGENCE (AI SPECIALISATION)

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## **Programming for Data & AI**

On completion of the module, trainees should be able to develop program codes by creating program logic, writing program codes and debugging program.

## **AI Governance**

On completion of the module, trainees should be able to manage compliance to data and AI governance processes, as well as mitigate non-compliance incidents.

## **Advanced Data Insights**

On completion of the module, trainees should be able to perform data processing, analysis and visualisation using data analytics tools.

## **Data Preparation & Feature Engineering**

On completion of the module, trainees should be able to inspect data quality and perform feature extraction, as well as prepare train-test-validate subsets for model building.

## **AI Model Design & Development**

On completion of the module, trainees should be able to build and fine-tune AI models according to AI model requirements.

## **Machine Learning Pipeline**

On completion of the module, trainees should be able to develop ML pipeline workflow by designing and automating pipeline workflow, as well as debugging workflow issues.

## **AI Operations**

On completion of the module, trainees should be able to design and deploy AI operation, as well as evaluate performance metrics.

## **AI Solution Design & Development**

On completion of the module, trainees should be able to address a problem statement through AI solution development. They should also be able to deploy AI model or pipeline workflow and implement ML system.

## **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.

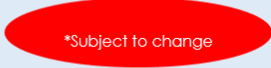
## **On-the-Job Training**

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 for WSDip in AI & Data Intelligence

### Block Release

*\* Off-JT day must be a paid working day, included in employment contract*

Year	Term 1 (APRIL)	OJT	Term 2	OJT
Year 1	6 weeks, 5 days/week at ITE CW	20 Weeks On Job Training	6 weeks, 5 days/week at ITE CW	13 Weeks On Job Training
	OJT	Term 3	OJT	Term 4
Year 2	26 Weeks On Job Training	6 weeks, 5 days/week at ITE CW	11 Weeks On Job Training	6 weeks, 5 days/week at ITE CW
	Term 5	OJT		
Year 3	2 weeks, 5 days/week at ITE CW	24 Weeks On Job Training		