

**List of Competencies for On-the-Job Training (OJT)  
Work-Study Diploma in Architectural BIM & Design**

<b>S/N</b>	<b>List of Competencies (Standard)</b>	<b>Company to indicate '✓' for OJT competencies it can provide</b>
1	Develop Scope of Services	
2	Obtain Project Information	
3	Identify Regulatory Requirements	
4	Provide initial design drawings to meet the design brief	
5	Check initial design to design brief	
6	Check initial design compliance to regulations	
7	Prepare schematic design drawings for design proposal	
8	Produce BIM model of design proposal	
9	Check schematic design compliance to regulations	
10	Produce the initial design drawings required for development control submission	
11	Prepare Development Control drawings with sufficient information	
12	Prepare drawings to technical authorities for Development Control clearance	
13	Prepare submission plans for planning permission	
14	Prepare BIM drawings for BCA submission	
15	Prepare BIM drawings for technical clearance by relevant authorities	
16	Prepare BIM drawing to meet BCA compliances	
17	Create BIM families for building components	
18	Prepare BIM drawings for architectural elements	
19	Prepare BIM drawings for fixtures	
20	Prepare BIM drawings for tender	
21	Prepare BIM Schedule	
22	Collate Tender Package	
23	Develop federated BIM model	
24	Coordinate BIM models for construction	
25	Simulate BIM model	
26	Manage TOP process	
27	Administer CSC process	

S/N	List of Competencies (Standard)	Company to indicate '✓' for OJT competencies it can provide
28	Collate as-built BIM models	
	<b>Sub-total of Competencies (Standard)</b>	
<b>List of Competencies (Company-specific)</b>		
1		
2		
3		
4		
5		
6		
7		
	<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			
Reviewed by CED / College <i>(For Company-specific Competencies)</i>		Verified by IBT Officer	
Name:			Name & Date:
Designation:		Date:	

Version: June'23

# WORK-STUDY DIPLOMA IN ARCHITECTURAL BIM & DESIGN

## Core Modules

### Design Preliminary

On completion of the module, trainee should be able to outline the key work scope of architectural services, support architectural practice to obtain necessary project information from relevant authorities, and identify regulatory requirements applicable to the project

### Sketch Design

On completion of the module, trainee should be able to prepare the required drawings and 3D massing model based on the initial design proposed by the architectural office for design presentation to client. He/she will also require to check that the initial design is compliance to regulations.

### Schematic Design

On completion of the module, trainee should be able to produce design drawings and develop parametric BIM model to a suitable level of detail that can be used for design presentation, consultants' coordination and also further developed for submission to the relevant authorities at various stages of project. He/she will also be required to check that the design complies with regulatory requirements.

### Development Control Submission

On completion of the module, trainee should be able to produce required drawings and/or develop BIM model to sufficient level of detail required for Development Control Submissions, while ensuring that the design complies with regulatory requirements. He/she will also be equipped to prepare drawings for development control clearance with Frontline Technical Departments and submission plans to submit to URA for Written Permission.

### Building Plan Submission

On completion of the module, trainee should be able to produce required drawings and/or develop BIM model to sufficient level of detail required for Building Plan submissions while ensuring that the design complies with regulatory requirements. He/she will also be equipped to prepare drawings for BP clearance with Technical Departments and submission plans to submit to BCA for BP Approval

### Detail Design

On completion of the module, trainee should be able to prepare the detailed drawings of architectural elements and spaces along with material specifications, develop BIM families for standard architectural elements and generate schedules of architectural elements and spaces appropriate for pricing and inclusion in tender package

### Tender Drawings

On completion of the module, trainee should be able to produce a complete set of architectural tender package incorporating all required drawings, details, technical specifications and documentation necessary to enable pricing of products and services and calling of tender for an architectural project.

### BIM Simulation

On completion of the module, trainee should be able to integrate building services and structural systems with the architectural design using BIM modelling. They should be able to perform multi-disciplinary coordination and clash detection by performing simulations using BIM software and VR technology.

### Occupation Permit & Statutory Completion

On completion of the module, trainee should be able to produce architectural as-built drawings for submission to obtain clearances required for occupancy from relevant authorities. He/she should also be equipped to develop As-built BIM model for handing over the same to FM team.

### 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 (DAY RELEASE)

**1 day Off-JT in a 44 hrs/5 day work week**

		10 weeks	4 weeks	10 weeks	2 weeks	10 weeks	4 weeks	10 weeks	2 weeks
1 <sup>st</sup> Year	ITE	1 day/week	June Term Break	1 day/week	Sept Term Break	1 day/week	Dec Term Break	1 day/week	March Term Break
	Company	4 days/week	44 hrs / wk @ Company	4 days/week	44 hrs / wk @ Company	4 days/week	44 hrs / wk @ Company	4 days/week	44 hrs / wk @ Company

		1 day/week	June Term Break	1 day/week	Sept Term Break	1 day/week	Dec Term Break	1 day/week	March Term Break
2 <sup>nd</sup> Year	ITE	1 day/week	June Term Break	1 day/week	Sept Term Break	1 day/week	Dec Term Break	1 day/week	March Term Break
	Company	4 days/week	44 hrs / wk @ Company	4 days/week	44 hrs / wk @ Company	4 days/week	44 hrs / wk @ Company	4 days/week	44 hrs / wk @ Company

		1 day/week	June Term Break	1 day/week	Sept Term Break
3 <sup>rd</sup> Year	ITE	1 day/week	June Term Break	1 day/week	Sept Term Break
	Company	4 days/week	44 hrs / wk @ Company	4 days/week	44 hrs / wk @ Company