

# ECITB Introduction to Project Controls Course Brochure and Competency Matrix

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## 1. Course description

Course name: ECITB - Introduction to Project Controls.

This course Ensures delegates attain a sound foundation in project control tools and techniques and Improves confidence and capability in the role. The course provides a comprehensive and detailed insight into the fundamentals of project control including planning, estimating and cost engineering.

This course is aimed at those who require an introduction to the role of the Project Controller or Project Practitioners with little or no formal training in the subject of Project Controls or Project Management.

## 2. Course development

This course is prepared by the industry experts who helped Governmental and professional bodies to draft their national standards and certifications.

This course is mapped to the following standards or guides:

- ▶ ECITB – L2 Diploma in Project Controls, Estimating, Planning and Cost Engineering.

## 3. Certifications offered by professional bodies

The achievement of this qualification will prepare you for progression to the following qualifications:

- ▶ ECITB Level 2 Diploma in Project Controls, Estimating, Planning and Cost Engineering.

## 4. Eligibility Requirements

- ▶ There are no age or formal entry requirements that you are required to take for this training.

## 5. Course Syllabus

Module#	Module Description
1	Introduction to Project Controls
2	Planning
3	Scheduling
4	Cost Estimating and Budgeting
5	Risk Management
6	Performance Measurement, Forecasting and Reporting
7	Information management
8	Building Information Modelling (BIM)
9	FIDIC and NEC

## 6. Competency Matrix

Module 1	Introduction to Project Controls
End state vision - This module is designed to develop the ability of the learner to understand the concepts of project controls, elements of project controls and its implementation to improve transparency of the project performance.	
Understanding	Skills achieved
<ul style="list-style-type: none"> <li>▶ Project Management Overview.</li> <li>▶ Business case.</li> <li>▶ Difference between project management and project controls.</li> <li>▶ Project controls fundamentals, key terminologies and techniques.</li> <li>▶ Integrated project controls.</li> <li>▶ Project controls framework.</li> <li>▶ Project assurance and control relationship.</li> </ul>	<ul style="list-style-type: none"> <li>▶ Implement integrated project controls for effective decision-making and improved transparency of the project performance.</li> <li>▶ Select project controls techniques based on the project risk and complexity.</li> </ul>
Module 2	Planning
End state vision - This module is designed to develop the ability of the learner to understand concepts of planning, develop project execution strategy and plan for project control.	
Understanding	Skills achieved
<ul style="list-style-type: none"> <li>▶ Introduction to planning and its key terminologies.</li> <li>▶ Project assurance and project planning process.</li> <li>▶ Contract requirements and stakeholder needs.</li> <li>▶ How to organize a project for execution.</li> <li>▶ Breakdown structures, RAM, Control Accounts (CA), Work packages (WP), Planning Package (PP) and RACI.</li> <li>▶ Scope management.</li> </ul>	<ul style="list-style-type: none"> <li>▶ Scaling of the planning appropriate for the project complexity and risk.</li> <li>▶ Organise the project for project controls.</li> <li>▶ Develop WBS, OBS and RAM, CA, WP, PP and RACI.</li> <li>▶ Establish a baseline/Performance Measurement Baseline (PMB).</li> <li>▶ Develop the project controls plan.</li> <li>▶ Planning for periodic updates and forecasts.</li> <li>▶ Scope management.</li> <li>▶ Requirement management.</li> </ul>
Module 3	Scheduling
End state vision - This module is designed to develop the ability of the learner to understand concepts of scheduling, types of schedules, building the schedule, schedule quality check, schedule maintenance and reporting.	
Understanding	Skills achieved
<ul style="list-style-type: none"> <li>▶ Introduction to scheduling and its key terminologies.</li> <li>▶ Scheduling process, inputs and considerations.</li> <li>▶ Schedule levels, types, specifications and methodologies.</li> <li>▶ Schedule development/building.</li> <li>▶ Schedule maintenance and controlling.</li> <li>▶ Schedule change management.</li> </ul>	<ul style="list-style-type: none"> <li>▶ Select the schedule type that best fits the size, scope, and complexity of the project.</li> <li>▶ Model schedule (Identify activities, estimate durations, logic links, resources, constraints, calendars and milestones).</li> <li>▶ Analyse total float and critical path.</li> <li>▶ Document schedule basis.</li> <li>▶ Schedule quality analysis.</li> </ul>

<ul style="list-style-type: none"> <li>▶ Schedule acceleration techniques.</li> <li>▶ Recovery schedule.</li> </ul>	<ul style="list-style-type: none"> <li>▶ Schedule maintenance and control (update, forecasting &amp; analysis) and reporting.</li> <li>▶ Perform schedule change management.</li> <li>▶ Schedule acceleration.</li> <li>▶ Prepare recovery schedules.</li> </ul>
<b>Module 4</b>	<b>Cost Estimating and Budgeting</b>
End state vision - This module is designed to develop the ability of the learner to understand concepts of cost estimating and budgeting.	
<b>Understanding</b>	<b>Skills achieved</b>
<ul style="list-style-type: none"> <li>▶ Introduction to cost estimating, budgeting and key terminologies.</li> <li>▶ Project estimating process and types.</li> <li>▶ Estimating methodologies.</li> <li>▶ Cost elements.</li> <li>▶ Project budgeting.</li> </ul>	<ul style="list-style-type: none"> <li>▶ Develop the project estimate.</li> <li>▶ Analysing and appreciating risk in estimating.</li> <li>▶ Document the basis of estimate.</li> <li>▶ Develop the project budget/Performance Measurement Baseline (PMB).</li> <li>▶ Prepare cash-flow statements.</li> </ul>
<b>Module 5</b>	<b>Risk Management</b>
End state vision - This module is designed to develop the ability of the learner to understand the concepts of risk management, identify risks, perform qualitative, semi quantitative and quantitative risk assessment for the project and plan for risk treatment.	
<b>Understanding</b>	<b>Skills achieved</b>
<ul style="list-style-type: none"> <li>▶ Risk management process (Standard ISO 31000:2009).</li> <li>▶ Introduction to risk management and its key terminologies.</li> <li>▶ Risk analysis (qualitative, semi quantitative and quantitative).</li> <li>▶ Risk evaluation.</li> <li>▶ Risk treatment.</li> </ul>	<ul style="list-style-type: none"> <li>▶ Perform risk management for the project. <ul style="list-style-type: none"> <li>• Establish context.</li> <li>• Risk identification.</li> <li>• Risk analysis. <ul style="list-style-type: none"> <li>▶ Qualitative.</li> <li>▶ Semi-Qualitative.</li> <li>▶ Quantitative (Schedule and Cost risk analysis).</li> </ul> </li> </ul> </li> <li>• Evaluate risk.</li> <li>• Risk treatment.</li> <li>• Risk monitoring and control.</li> <li>• Risk consultation and documentation.</li> </ul>
<b>Module 6</b>	<b>Performance Measurement, Forecasting and Reporting</b>
End state vision - This module is designed to develop the ability of the learner to understand the concepts of progress and performance measurement, project performance assessment, forecasting, performance reporting and change management.	
<b>Understanding</b>	<b>Skills achieved</b>
<ul style="list-style-type: none"> <li>▶ Performance measurement methods.</li> <li>▶ Evaluating and recording progress.</li> <li>▶ Project forecasting.</li> <li>▶ Introduction to change management.</li> <li>▶ Overview of EVMS and its principles.</li> </ul>	<ul style="list-style-type: none"> <li>▶ Progress and performance measurement.</li> <li>▶ Project performance assessment (Productivity, cost and schedule performance).</li> <li>▶ Forecasting and performance reporting.</li> <li>▶ Perform change management.</li> </ul>

<ul style="list-style-type: none"> <li>▶ Overview of ANSI 748 standards.</li> <li>▶ How to design an EVMS.</li> <li>▶ Rolling wave planning (WP &amp; PP).</li> </ul>	<ul style="list-style-type: none"> <li>▶ Organise the project (WBS, OBS, RAM and CA).</li> <li>▶ Establish the PMB.</li> <li>▶ Design an EVMS and reporting.</li> </ul>
<b>Module 7</b>	<b>Information Management</b>
End state vision - This module is designed to develop the ability of the learner to understand concepts of information management system.	
<b>Understanding</b>	<b>Skills achieved</b>
<ul style="list-style-type: none"> <li>▶ Record keeping.</li> <li>▶ Data, Information, and Knowledge.</li> <li>▶ How to gather and process the data.</li> <li>▶ How to convert the data into information.</li> </ul>	<ul style="list-style-type: none"> <li>▶ Data gathering, Convert data to information.</li> <li>▶ Present or report data for decision-making.</li> <li>▶ Maintain database.</li> <li>▶ Document management and lessons learned.</li> </ul>
<b>Module 8</b>	<b>Building Information Modelling (BIM)</b>
End state vision - This module is designed to develop the ability of the learner to understand concepts of Building Information Modelling.	
<b>Understanding</b>	<b>Skills achieved</b>
<ul style="list-style-type: none"> <li>▶ Definition of BIM.</li> <li>▶ Purpose of BIM.</li> <li>▶ BIM Technology.</li> <li>▶ The BIM culture.</li> </ul>	<ul style="list-style-type: none"> <li>▶ Use BIM to save time and money throughout the building lifecycle from initial planning through ongoing operations and maintenance.</li> </ul>
<b>Module 9</b>	<b>FIDIC &amp; NEC</b>
End state vision - This module is designed to develop the ability of the learner to understand the concepts of NEC/FIDIC Contracts/Contracts Management.	
<b>Understanding</b>	<b>Skills achieved</b>
<ul style="list-style-type: none"> <li>▶ Introduction to NEC contracts and FIDIC contracts.</li> <li>▶ Understand key contractual terms and conditions.</li> </ul>	<ul style="list-style-type: none"> <li>▶ Implementation of sound project management principles within the requirements specified in the contract.</li> <li>▶ Use contracts management in a wide variety of contractual situations.</li> </ul>

Note – Our course brochures are updated on a regular basis for continuous improvement