

# Critical Path Analysis

1 Day Course

RGC-CPA01



Rylson Group

Course Outline

Critical Path Analysis	
<b>Objective</b>	To provide participants with the skills and knowledge to competently apply the principles of Critical Path Analysis.
<b>Benefits</b>	Improve shutdown and project planning skills
<b>Who Should Attend?</b>	<b>Managers, Planners Supervisors, Team Leaders</b> who participate in the development of shutdown plans or projects.
<b>Course Outline</b>	On the completion of this course you will be expected to: <ul style="list-style-type: none"><li>▪ Define critical path as applicable to project type activities</li><li>▪ Apply critical path analysis to shutdown plans</li><li>▪ Manipulate activities to achieve critical path determinants</li><li>▪ Develop appropriate metrics to monitor critical path/s</li></ul>



## 1.0 WELCOME AND INTRODUCTION

Welcome and introductions

Course overview

Icebreaker

Course objectives

Basic Glossary of Terms – Project Management

## 2.0 CRITICAL PATH METHOD (CPM)

Introduction

Shutdown Management Risk Survey

Program Evaluation Review Technique (PERT)

The Network Diagram

## 3.0 DEVELOPING A BASIC PERT CHART

STEP 1 – Identify The Specific Activities

STEP 2 – Determine Activity Sequence

STEP 3 – Construct The Network Diagram

STEP 4 – Estimate Activity Times

STEP 5 – Determine The Critical Path

STEP 6 – Update As Project Progresses

STEP 7 – PERT limitations & Advantages

## 4.0 PROJECT PROBABILITY AND CRASHING

Calculation of Probability of Meeting Shutdown Completion



## 5.0 PROJECT CRASHING – TIME/COST OPTIMISATION

- Activity Time/Cost Data
- Total Project Costs
- Rules For Project Crashing
- The Crashing Process
- Notes About Float or Slack
- Crash Example

## 6.0 ACTIVITY ON NODE NETWORKS OR RPS

- RPS Symbols
- Activity Boxes
- Activities in Series
- Use of Distributors
- Use of Collectors
- Distributors and Collectors in Series
- RPS Logic Conventions
- RPS Graphical Conventions
- Steps Involved in Plotting and RPS Network Diagram
- Time Analysis
- Critical Path