Critical Path Analysis

1 Day Course

RGC-CPA01

Rylson Group

Course Outline

Critical Path Analysis	
Objective	To provide participants with the skills and knowledge to competently apply the principles of Critical Path Analysis.
Benefits	Improve shutdown and project planning skills
Who Should Attend?	**Managers, Planners Supervisors, Team Leaders** who participate in the development of shutdown plans or projects.
Course Outline	On the completion of this course you will be expected to: ▪ Define critical path as applicable to project type activities ▪ Apply critical path analysis to shutdown plans ▪ Manipulate activities to achieve critical path determinants ▪ Develop appropriate metrics to monitor critical path/s

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