

## Using Availability Workbench

**DURATION:** 4 Days

This course is designed to fast-track you through the process of using Isograph's Availability Workbench software to make maintenance and reliability decisions. It's intent is to teach students the three main modules in Availability Workbench, RCMCost, AvSim & LCC by self discovery and working through a series of exercises.

### COURSE OUTLINE:

#### Introduction to RCMCost

- RCMCost Features
- Proactive Asset Management
- Failure Data Analysis Using Weibull
- Steady State Failure Rates
- Why is the Weibull distribution important?
- Interpreting Beta
- Failure Behavior & Beta Shapes
- Random Failure Patterns
- Weibull in RCMCost
- Data Quality
- Practical Weibull Analysis
- Choosing Maintenance Tasks
- Using The Weibull Distribution

#### Introduction to Reliability Centered Maintenance Method

- The Seven Questions of RCM
- Introduction to RCMCost
- Building an Effects Table
- The FMEA Drilldown
- Selecting Optimum Maintenance Task
  1. Conduct a Business Review
  2. Develop an Asset Hierarchy on a Functional Basis
  3. Perform a Functional Analysis
  4. Perform a Functional Failure Analysis
  5. Identify the Physical Cause of Failure
  6. Assign Failure Consequences
  7. Simulate RTF or Current Practice for Maintenance Evaluations
  8. Evaluate Options
  9. Defining Preventive Maintenance Tasks
  10. Inspection Tasks
  11. P-F Interval
  12. Produce the Maintenance Plan

#### Introduction to AvSim+

- System Analysis And RCMCost
- Creating Reliability Block Diagrams (RBD's)
- System With 3 Components In Parallel
- Increasing Complexity
- Exercise Building RBD's
- Production Capacity
- Importance Analysis
- Features of AvSim+ The User Interface
- Modifying a Network Diagram
- Common Cause Failures
- Failure Mode Properties
- Failure Model General Dialog
- Failure Model Failure Dialog
- Corrective Maintenance Dialog
- Planned Maintenance Dialog
- Inspection Dialog
- Spare Parts Dialog
- Labor Category Dialog
- Project Options
- Data Verification
- Simulation Results
- Importance Ranking
- Optimizing Spare Holdings
- Application Options

#### Introduction to LCC

- Global Variables
- Phases
- Building a Cost Breakdown Structure
- Setting Interval Costs
- Using interval costs from RCMCost or AvSim+
- Setting Model Lifetime
- Viewing Results
- RCM Training Exercise