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COURSE BROCHURE

# Advanced Capturing Tacit Knowledge and Expertise Retention Course

28 March – 8 April 2027
Kuala Lumpur

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# Advanced Capturing Tacit Knowledge and Expertise Retention Course

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Capturing Tacit Knowledge and Expertise Retention is a 2-week training course for engineering managers, HR leads and operations directors facing retirements, who build an Expert Knowledge Retention Plan for their most exposed roles. Senior specialists carry judgement about plant, equipment, clients and incidents that no procedure records, and much of it leaves on the day they retire. Jupiter Prime Training offers this course to help organisations keep that judgement in use.

## Why Capturing Tacit Knowledge and Expertise Retention Matters Now

Three forces drive the subject: large cohorts of experienced engineers and operators approaching retirement, leaner staffing that removes overlap between generations, and assets kept in service longer than their designers expected. Where expert judgement is elicited and codified in time, successors diagnose faults faster, avoid repeating old incidents and keep ageing assets safe; where it is not, organisations face longer outages, costly rehiring of retirees and quality slips that clients notice. The course builds on ISO 30401 Knowledge Management Systems Requirements and on established elicitation methods such as the critical decision method and cognitive task analysis.

## Who Gains Most from Capturing Tacit Knowledge and Expertise Retention

- Engineering heads accountable for the reliability of assets that depend on a few veterans
- Operations directors who must keep plants, networks or service lines running through staff departures
- HR leads responsible for retirement planning, phased exits and re-engagement of retirees
- Maintenance and technical training managers who turn expert know-how into guides and practice
- Quality and safety leads who need incident judgement preserved for future events

Organisations gain most when an engineering head, an operations director and an HR lead attend together, because retention decisions span asset risk and people choices.

## Capturing Tacit Knowledge and Expertise Retention Capabilities

Participants leave able to locate the judgement that matters, draw it out of experienced people and turn it into material successors actually use.

- Assess knowledge loss risk by expert, asset and process — sequencing decisions of sponsors
- Design elicitation interviews using the critical decision method — experts and their successors
- Apply cognitive task analysis and think-aloud protocols — training designers closing novice gaps
- Build story libraries and shadowing schedules — line managers arranging handovers
- Specify expert judgement guides and troubleshooting trees — maintenance and operations crews
- Weigh phased retirement and re-engagement options — HR and finance approvers

## Key Capturing Tacit Knowledge and Expertise Retention Terms

- Tacit knowledge — Judgement and skill an expert uses without consciously stating it, such as recognising an abnormal sound or an unusual client signal.
- Critical decision method — An interview technique that reconstructs a difficult past incident to reveal the cues, options and reasoning an expert used.
- Cognitive task analysis — A family of methods that uncovers the mental steps, decision points and patterns behind skilled performance of a task.
- Knowledge loss risk matrix — A grid rating each expert by likelihood of departure and consequence of losing their know-how, used to set priorities.
- Work shadowing — A successor observes an expert performing real tasks, noting workarounds and judgement calls that procedures omit.
- Expert judgement guide — A codified document of decision rules, cues and examples that lets a less experienced person act as an expert would.

## Capturing Tacit Knowledge and Expertise Retention Day by Day

## Day 1: The Tacit Knowledge Problem

- Explicit, Implicit and Tacit Knowledge Distinctions — Choice of Capture Method
- Retirement Waves and Expert Attrition — Exposure in Engineering and Operations
- Socialisation and Externalisation Routes — How Know-How Moves Between People
- Expert Performance Characteristics — Cues, Patterns and Rules of Thumb
- Sponsor Expectations for Retention Efforts — Scope and Resourcing Choices

## Day 2: Critical Knowledge Risk Assessment

- Knowledge Loss Risk Matrix — Departure Likelihood Against Consequence
- Expert Inventory by Asset and Process — Holders of Irreplaceable Skill
- Single-Point-of-Failure Analysis — Roles Without Backup Expertise
- Retirement Horizon Profiling With HR Records — Timing of Interventions
- Risk Prioritisation Briefing — Selection of First Experts to Engage

## Day 3: Structured Elicitation Interviews

- Interview Protocol Design — Questions That Surface Hidden Judgement
- Critical Decision Method — Reconstructing Difficult Past Incidents
- Laddering and Probing Techniques — Reasons Behind Expert Choices
- Interviewer Rapport and Trust Building — Openness of Senior Staff
- Interview Recording and Transcription Rules — Consent and Storage Choices

## Day 4: Cognitive Task Analysis

- Task Decomposition of Expert Activity — Hidden Decision Points Revealed
- Think-Aloud Protocols — Real-Time Reasoning During Live Tasks
- Cue and Pattern Recognition Mapping — Signals Experts Notice First
- Concept Mapping With Experts — Mental Models Made Visible
- Novice-Expert Comparison — Gaps Successor Training Must Close

## Day 5: Observation and Work Shadowing

- Work Shadowing Schedules — Exposure to Rare and Seasonal Tasks
- Field Observation Notes — Workarounds Absent From Procedures
- Video Capture of Hands-On Skills — Repeatable Demonstrations for Successors
- Apprenticeship Pairing Designs — Supervised Practice Before Departure
- Shadowing Debriefs — Converting Observations Into Usable Insight

## Day 6: Storytelling and Narrative Capture

- Story Elicitation Sessions — Accounts of Failures and Recoveries
- Narrative Structure for Knowledge Stories — Context, Challenge, Resolution, Lesson
- Anecdote Circles — Patterns Across Many Experiences
- Story Libraries and Tagging — Retrieval by Situation and Asset
- Ethical Use of Personal Accounts — Attribution and Sensitivity Choices

## Day 7: Learning From Events

- After-Action Reviews With Veteran Staff — Judgement Behind Recoveries
- Near-Miss and Incident Debriefs — Expert Reading of Early Warnings
- Retrospective Timeline Reconstruction — Sequence of Expert Decisions
- Lessons Embedded Into Work Instructions — Procedure Update Choices
- Expert Panels for Rare Events — Contingency Knowledge Preservation

## Day 8: Codifying Expert Judgement

- Expert Judgement Guides — Decision Rules Usable by Successors
- Troubleshooting Decision Trees — Faster Fault Diagnosis on Site
- Annotated Checklists With Expert Tips — Context Beyond the Steps
- Validation Sessions With Source Experts — Accuracy of Codified Content
- Usability Testing With Junior Staff — Fitness of Guides for Use

## Day 9: Retention Options and Incentives

- Phased Retirement and Re-Engagement Options — Extended Access to Experts
- Expert Recognition and Legacy Framing — Motivation to Share Know-How
- Retention Budget Sequencing — Allocation Across Critical Roles
- Placement of Captured Know-How — Findability for Successors
- Retention Effectiveness Measures — Successor Competence and Incident Trends

## Day 10: Practising the Expert Knowledge Retention Plan

- Risk Matrix and Expert Inventory Consolidation — Priority Experts Confirmed
- Elicitation Method Selection per Expert — Interview, Analysis or Shadowing Mix
- Codified Guide Prototype Review — Validation and Usability Findings Applied
- Retention Options and Measures Alignment — Sponsor Agreement on Sequencing
- Expert Knowledge Retention Plan — Final Presentation to Sponsors

## Applying Capturing Tacit Knowledge and Expertise Retention After the Course

- Score the five most exposed experts in one function on the knowledge loss risk matrix and agree an elicitation method for each.
- Run a critical decision method interview with one senior specialist and turn the result into a draft troubleshooting decision tree for validation.

## Capturing Tacit Knowledge and Expertise Retention Questions FAQ

### What is capturing tacit knowledge and expertise retention, and why does it matter now?

It is the discipline of drawing unwritten judgement out of experienced people and keeping it usable after they leave. It matters now because retirements, lean staffing and long-lived assets mean the people who know how things really work are leaving faster than successors can learn.

### Which roles gain most from capturing tacit knowledge and expertise retention?

Engineering managers, operations directors and HR leads facing retirements gain most. Maintenance, training and safety leads in sectors such as utilities, oil and gas, manufacturing and aviation also benefit, since their results rely on veteran judgement.

### How does capturing tacit knowledge and expertise retention differ from a general knowledge management strategy course?

It focuses on elicitation and codification methods rather than organisation-wide strategy. A strategy course designs repositories, communities and metrics; this one teaches how to interview, observe and analyse individual experts and turn their judgement into guides successors can follow.

## What will you bring back from capturing tacit knowledge and expertise retention?

You bring back a retention plan naming your priority experts, the elicitation method for each, prototype judgement guides and the retention options agreed with sponsors. You also bring interview protocols and risk templates ready for immediate use.

## Capturing Tacit Knowledge and Expertise Retention: The Way Forward

The Expert Knowledge Retention Plan first informs which experts are engaged first and which elicitation methods they receive. Engineering, operations and HR leaders use it to schedule interviews, shadowing and phased exits. After the first experts have left, revisit how successors actually perform with the codified guides, since that evidence shows which capture methods deserve more investment.