Human Error Analysis and Prevention Training Course

8 – 12 March 2027
Porto

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Training Center

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Ref: 1348_199656 **Date:** 8 – 12 March 2027 **Location:** Porto **Fees:** 5700 Euro

Overview

Human Error Analysis and Prevention Training Course is a one-week advanced course for safety professionals, operational leaders, reliability engineers, investigators, supervisors, and human-factors practitioners who leave with a Human Error Prevention Plan. Participants apply human error analysis to slips, lapses, mistakes, violations, performance influencing factors, error-likely conditions, and systemic incident investigation. The course connects task analysis, just culture, barrier design, procedure usability, workload, fatigue, communication, and human-performance tools. Agile Leaders Training Center presents human error prevention through operational evidence, structured analysis, and control design.

Who Should Attend

- Functions responsible for operational safety and risk controls
- Teams responsible for incident investigation and organizational learning
- Functions responsible for reliability and safety-critical task design
- Supervisors responsible for frontline performance and work coordination
- Practitioners responsible for human factors and procedure usability

The course assumes participants analyze operational work or safety events and leaves out clinical diagnosis, legal fault determination, and equipment engineering design.

Departments and Industries

The course supports departments and industries that manage human performance in safety-critical and operational work.

- Energy, utilities, and process operations
- Transport, aviation maintenance, and logistics
- Manufacturing, engineering, and reliability functions
- Healthcare operations and patient-safety functions
- Occupational safety, quality, and internal assurance

Learning Objectives

By the end of this course, participants will be able to:

- Analyze slips, lapses, mistakes, and violations without defaulting to blame
- Diagnose performance influencing factors and error-likely conditions
- Apply task analysis and procedure-usability review methods
- Evaluate systemic causes, barriers, and corrective actions
- Use human-performance tools for critical work
- Build a Human Error Prevention Plan

Course Agenda

Day 1: Error Classification and Context

- Slips, Lapses, Mistakes, and Violations Classification Matrix
- Job, Individual, and Organization Human Factors Model
- Performance Influencing Factors Screening Tool
- Error-Likely Conditions Mapping Method
- Just Culture Decision Review

Day 2: Task and Procedure Analysis

- Safety-Critical Task Analysis Worksheet
- Task-Step Error Opportunity Map
- Procedure Usability Review Checklist
- Workload and Fatigue Exposure Assessment
- Communication and Handover Control Review

Day 3: Event Investigation and Learning

- Systemic Incident Investigation Sequence
- Evidence and Timeline Mapping Board
- Underlying Cause Analysis Method
- Learning Team Questioning Guide
- Corrective Action Quality Test

Day 4: Error Prevention and Control Design

- Barrier and Defense Effectiveness Matrix
- Error Prevention Hierarchy for Work Design
- Task Preview and Job-Site Review Method
- Situational Awareness and Questioning Tools
- Human Error Prevention Plan Template

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Day 5: Human Error Prevention Practice

- Exercise: Error Type and Context Classification
- Exercise: Critical Task and Procedure Review
- Exercise: Systemic Event Investigation
- Exercise: Barrier and Corrective Action Evaluation
- Capstone Exercise: Human Error Prevention Plan

Practical Exercises

The course uses suggested activities from process operations, maintenance, transport, manufacturing, and healthcare operations.

- Suggested activity: classify actions in a safety event and separate active errors from performance influencing factors.
- Suggested activity: analyze a critical task, identify error opportunities, and test procedure usability.
- Suggested activity: build an event timeline, identify systemic causes, and evaluate proposed corrective actions.
- Suggested activity: design barriers and assemble a Human Error Prevention Plan with owners and review measures.

FAQs

What is human error analysis and prevention?

Human error analysis and prevention examines actions, task conditions, organizational influences, and defenses to explain why errors become likely and to design controls that prevent, detect, or reduce their consequences.

Who suits human error analysis and prevention training, and what does it assume?

Human error analysis and prevention training suits personnel who investigate events, supervise critical work, design controls, or manage operational risk and assumes experience with workplace processes or safety evidence.

How does human error analysis differ from basic incident investigation training?

Human error analysis goes beyond event sequencing to classify error modes, assess performance influencing factors, examine task and system design, and develop error-tolerant controls; basic incident investigation training commonly emphasizes evidence collection and cause identification.

How do performance influencing factors affect human error prevention?

Performance influencing factors reveal how workload, fatigue, interfaces, procedures, communication, competence, supervision, and organizational conditions increase or reduce the likelihood of error.

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What makes a human error prevention plan practical?

A practical human error prevention plan links priority tasks and error scenarios to control changes, responsible owners, implementation evidence, monitoring measures, and review triggers.

Conclusion

The course integrates error classification, task analysis, procedure review, systemic investigation, barrier evaluation, and human-performance tools. Participants take back a Human Error Prevention Plan with priority scenarios, controls, owners, evidence, and review measures. The plan changes how teams identify error-likely conditions, investigate events, and improve work systems.