

Safety Technology & Risk Management: Mastering Hazard Control





Safety Technology & Risk Management: Mastering Hazard Control

Ref: 321449_140093 Date: 06 - 10 Oct 2025 Location: Madrid (Spain) Fees: 4400 Euro

Course Description

This comprehensive 5-day course equips professionals with advanced knowledge and skills in safety technology and risk management. Participants will learn to identify hazards, assess risks, and implement effective control measures in complex industrial environments. The course covers cuttingedge safety technologies, risk assessment techniques, and strategies for creating a robust safety culture.

Learning Objectives

- Apply principles of hazard identification and risk assessment to processes and machinery
- Understand reliability concepts and utilize failure tracing methods
- Demonstrate practical understanding of quantitative risk assessment techniques
- Develop and implement effective control methods based on risk evaluation
- Identify requirements for safe work systems and relevant international standards
- Promote a proactive approach to hazard analysis and safety management

Course Modules

Day 1: Fundamentals of Safety Technology

- Introduction to safety engineering and major industrial disasters
- The safety system process and hazard identification techniques
- Criteria for risk tolerability and hazard control strategies
- Safety standards, codes, and regulations national and international

Day 2: Advanced Risk Assessment Techniques

- Safety management systems and lifecycle approach
- Process, workplace, and equipment risk assessment methodologies
- Task-based risk assessment and human factors analysis
- Introduction to HAZOP Hazard and Operability Study

Day 3: Machinery and Work Equipment Safety

- Machinery hazard identification and accident prevention methods
- Failure modes, effects analysis FMEA, and software safety
- Human factors in safety analysis and performance optimization
- Case studies and practical HAZOP examples

UK Traininig
PARTNER

Head Office: +44 7480 775 526 | 0 7401 177 335 Email: training@blackbird-training.com

Website: www.blackbird-training.com



Day 4: Reliability Technology and Protective Systems

- Types and causes of failures in industrial systems
- Maintenance strategies and inspection regimes
- Design and reliability of control and protective systems
- High Integrity Protective Systems HIPS and Safety Integrity Levels SIL

Day 5: Consequence Analysis and Emergency Planning

- Mechanics of fire, explosion, and toxic releases
- Dispersion modeling and quantitative risk assessment
- Event Tree Analysis ETA and emergency response planning
- Integration of safety technologies in risk management strategies

Practical Wins for Participants

- Develop a comprehensive hazard identification and risk assessment plan for a specific industrial process
- Create a customized safety management system framework aligned with international standards
- Design a reliability-centered maintenance program for critical equipment
- Formulate an emergency response plan integrating advanced safety technologies



Head Office: +44 7480 775 526 | 0 7401 177 335

Email: training@blackbird-training.com Website: www.blackbird-training.com



Blackbird training cities





Annecy (France)

Baku (Azerbaijan)

Accra (Ghana)

Bali (Indonesia)

Bangkok (Thailand)

Bangkok (Thailand)

Barcelona (Spain)

Batumi (Georgia)

Beijing (China)

Beirut (Lebanon)

Berlin (Germany)

Birmingham (UK)

Bordeax (France)

Boston, Massachusetts (USA)

Brussels (Belgium)

Cairo (Egypt)

Cape Town (South Africa)

Casablanca (Morocco)

Cascais (Portugal)

Copenhagen (Denmark)

Doha (Qatar)

Dubai (UAE)

Düsseldorf (Germany)

Head Office: +44 7480 775 526 | 0 7401 177 335

Email: training@blackbird-training.com Website: www.blackbird-training.com





Blackbird Training Category



Human Resources Management



Audit & Quality



Finance, Economics & Markets



Marketing, Sales & Negotiation



Secretary & Admin



Governance, Risk, & Compliance (GRC)



Project Management



Technology & Digital Transformation



Procurement, Contracts & Supply Chain



Leadership & Management Development



Professional Skills & Career Enhancement



Oil, Gas & Energy Industry Specialization



Healthcare & Safety Management



Telecom Engineering



Hospital Management



Customs Management & Global Trade Compliance



Aviation, Transportation & Logistics



Board Members & C-Suite Development



Agile and Refinement

Business Strategy & Competitive Analysis

Operational Risk Management



Head Office: +44 7480 775 526 | 0 7401 177 335

Email: training@blackbird-training.com Website: www.blackbird-training.com



Blackbird training Clients



MANNAI Trading Company WLL, Qatar



Alumina Corporation **Guinea**



Netherlands



Oxfam GB International Organization, Yemen



Capital Markets Authority, Kuwait



Waltersmith Petroman Oil Limited
Nigeria



Oatar National Bank (ONB), **Oatar**



Oatar Foundation, **Qatar**



AFRICAN UNION ADVISORY BOARD ON CORRUPTION, Tanzania



Kuwait



Reserve Bank of Malawi, **Malawi**



Central Bank of Nigeria
Nigeria



Ministry of Interior, KSA



Mabruk Oil Company **Libya**



Saudi Electricity Company,



BADAN PENGELOLA KEUANGAN Haji, Indonesia



Italy



ENI CORPORATE UNIVERSITY, Italy



Kuwait



General Organization for Social Insurance KSA



Defence Space Administration
Nigeria



National Industries Group (Holding), Kuwait



Hamad Medical Corporation, **Qatar**



USAID **Pakistan**



STC Solutions, KSA



North Oil company,



EKO Electricity



Oman Broadband



UN.





Head Office: +44 7480 775 526 | 0 7401 177 335

Email: training@blackbird-training.com Website: www.blackbird-training.com



LONDON TRAINING PROVIDER

