Operational Fatigue Risk Management Systems (FRMS) Training Course



14 - 18 Dec 2026

Sharm El-Sheikh

4100 € (Per Person)

Ref: #AVI8331_270558

Course Introduction / Overview:

Fatigue in the workplace is a significant, often underestimated, threat to safety and operational efficiency. This course provides a comprehensive framework for understanding, assessing, and managing fatigue-related risks within an operational context. Moving beyond traditional hours-of-service regulations, a Fatigue Risk Management System (FRMS) is a data-driven, proactive approach to ensuring personnel are performing at optimal levels of alertness. This program, offered by BIG BEN Training Center, is designed to equip participants with the practical skills needed to develop, implement, and maintain an effective FRMS. We will delve into the core principles of sleep science and circadian rhythms, drawing on the foundational work of academics like Dr. David F. Dinges, whose research has been pivotal in quantifying the impact of sleep loss on human performance. The course explores key components of a successful system, from policy development to fatigue reporting and investigation, as detailed in guides like the "Implementation Guide for Operators" by the FRMS Foundation. Participants will leave with a clear roadmap for integrating a robust FRMS into their existing Safety Management Systems (SMS), thereby enhancing safety, improving employee well-being, and boosting organizational resilience.

Target Audience / This training course is suitable for:

- Operations Managers and Directors.
- Health, Safety, and Environment (HSE) Professionals.
- Shift Supervisors and Team Leaders.
- Pilots, Cabin Crew, and Aviation Operations Staff.
- Air Traffic Controllers.
- Commercial Drivers (Truck, Bus, and Rail).
- Maritime Officers and Crew.
- Heavy Equipment and Machinery Operators.
- Healthcare Professionals, including Nurses and Doctors.
- Human Resources and Crew Scheduling Personnel.
- Compliance and Quality Assurance Managers.
- Accident and Incident Investigators.

Target Sectors and Industries:

- Aviation and Aerospace.
- Road, Rail, and Public Transportation.
- Maritime and Shipping.
- Oil and Gas Exploration and Production.
- Mining and Heavy Industry.
- Healthcare and Emergency Medical Services.
- 24/7 Manufacturing and Industrial Plants.
- Construction and Engineering.
- Government and Regulatory Bodies.
- Logistics and Supply Chain Management.

Target Organizations Departments:

- Operations Management.
- Health, Safety, and Environment (HSE).
- Human Resources (HR).
- Flight or Fleet Operations.
- Compliance and Regulatory Affairs.
- Quality Assurance.
- Training and Development.
- Logistics and Scheduling.
- Maintenance and Engineering.
- Risk Management.

Course Offerings:

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

- Develop a comprehensive FRMS policy tailored to their organization's specific needs.
- Identify fatigue hazards and conduct systematic fatigue-related risk assessments.
- Differentiate between traditional prescriptive rules and a modern performance-based FRMS.
- Implement effective fatigue countermeasures at both individual and organizational levels.
- Understand the scientific principles of sleep, fatigue, and circadian rhythms.
- Analyze data from fatigue reporting systems to identify trends and inform mitigation strategies.
- Design and deliver effective FRMS training and education programs for all staff levels.
- Integrate the FRMS seamlessly with the organization's existing Safety Management System (SMS).
- Promote a positive safety culture that encourages open reporting of fatigue.
- Conduct audits and reviews to ensure the continuous improvement of the FRMS.

Course Methodology:

The training methodology employed in this course is designed to be highly interactive and practical, ensuring that participants can apply the learned concepts directly to their work environments. BIG BEN Training Center believes in learning by doing, moving beyond theoretical lectures to focus on tangible skill development. The program combines expert-led presentations with dynamic group discussions, allowing participants to share experiences and benchmark practices from various industries. A significant portion of the course is dedicated to hands-on workshops where attendees will work on developing key FRMS components, such as drafting policy statements and designing risk assessment matrices. We will utilize a series of real-world case studies to analyze fatigue-related incidents, deconstruct their causes, and explore effective mitigation strategies. Role-playing scenarios will be used to practice skills like conducting fatigue investigations and communicating FRMS principles to staff. Continuous feedback from the instructor and peers is a core component, ensuring a supportive and collaborative learning atmosphere that fosters deep understanding and confidence in implementing an FRMS.

Course Agenda (Course Units):

Unit One: Foundations of Fatigue Science and Management

- The Science of Sleep and Circadian Rhythms.
- Understanding the Causes and Consequences of Workplace Fatigue.
- Differentiating Between Fatigue, Sleepiness, and Lack of Motivation.
- Impact of Fatigue on Cognitive Performance, Safety, and Health.
- Introduction to Fatigue Risk Management Systems (FRMS).
- Comparing FRMS with Traditional Prescriptive Hours of Service Rules.
- The Business Case for Implementing an FRMS.

Unit Two: The FRMS Framework and Policy Development

- Core Components of an Effective FRMS.
- Review of International Regulatory Frameworks (e.g., ICAO, EASA, FAA).
- Developing a Clear and Comprehensive FRMS Policy.
- Defining Roles, Responsibilities, and Accountabilities within the FRMS.
- Establishing the FRMS Documentation and Record-Keeping System.
- Securing Management Commitment and Stakeholder Buy-in.
- Integrating FRMS Goals with Overall Business Objectives.

Unit Three: Fatigue Hazard Identification and Risk Mitigation

- Proactive, Reactive, and Predictive Approaches to Fatigue Management.
- Methods for Identifying Fatigue-Related Hazards in Operations.
- Conducting a Formal Fatigue Risk Assessment.
- Introduction to Bio-Mathematical Models for Predicting Fatigue.
- Developing a Multi-Layered System of Fatigue Countermeasures.
- Strategies for Fatigue-Proofing Systems and Work Environments.
- Personal Fatigue Management Strategies for Operational Staff.

Unit Four: FRMS Implementation and Data-Driven Improvement

- Developing and Implementing a Confidential Fatigue Reporting System.
- Procedures for Investigating Fatigue Reports and Incidents.
- Designing and Delivering FRMS Training and Education Programs.
- Best Practices in Work and Rest Scheduling to Mitigate Fatigue.
- Collecting and Analyzing FRMS Data to Measure Performance.
- Using Data to Identify Fatigue Hotspots and Systemic Risks.
- Communicating FRMS Initiatives and Findings Across the Organization.

Unit Five: Fostering a Safety Culture and Continuous Improvement

- The Role of Just Culture in Encouraging Fatigue Reporting.
- Techniques for Auditing and Evaluating FRMS Effectiveness.
- Key Performance Indicators (KPIs) for Monitoring the FRMS.
- The Process of Continuous Improvement in Fatigue Management.
- Integrating the FRMS with the Broader Safety Management System (SMS).
- Managing Change During FRMS Implementation.
- Future Trends and Technologies in Fatigue Risk Management.

FAQ:

Qualifications required for registering to this course?

There are no requirements.

How long is each daily session, and what is the total number of training hours for the course?

This training course spans five days, with daily sessions ranging between 4 to 5 hours, including breaks and interactive activities, bringing the total duration to 20 - 25 training hours.

Something to think about:

How can an organization effectively balance operational demands with the physiological needs of its employees to maintain a robust FRMS without compromising productivity?

What unique qualities does this course offer compared to other courses?

This course distinguishes itself by moving beyond mere regulatory compliance to instill a deep, functional understanding of fatigue as a manageable operational risk. While other programs may focus heavily on the theoretical science of sleep, our curriculum is fundamentally practical, emphasizing the 'how-to' of FRMS implementation. We utilize a multi-industry approach, drawing on case studies from aviation, healthcare, and logistics to provide a holistic perspective that is applicable across diverse operational contexts. A key differentiator is our focus on data-driven decision-making; participants will learn not just to collect fatigue data but to analyze it meaningfully to drive proactive safety interventions and demonstrate a return on investment. The course structure is designed to build a complete system from the ground up, starting with policy creation and culminating in strategies for continuous improvement and integration with an existing SMS. Rather than simply presenting information, we facilitate the development of tangible skills through interactive workshops, ensuring every participant leaves with the confidence and a clear roadmap to build or enhance a world-class Fatigue Risk Management System within their own organization.