IATA Certified Human Factors and Safety Management in Aviation: An Essential Course For Aviation Professionals

Course Introduction

This course is designed to equip aviation professionals with the fundamentals of Human Factors and Safety Management. The curriculum aims to enhance understanding of the principles necessary to develop a robust safety culture within organizations. By exploring the four core disciplines of human factors, cultural influences, and models explaining human error, participants will gain insights into optimizing human contributions towards organizational safety.

Course Duration: 5 working days

Module 1: Introduction to Human Factors and Safety Management

• Overview of Human Factors and Human Performance: Understand the role of human performance in aviation safety.

• Evolution of Aviation Safety: Trace the historical advancements in aviation safety practices.

• Safety Management Systems: Learn about the framework and components of effective safety management systems as outlined in ICAO Doc 9859, 4th Ed.

Module 2: Human Factors Models

• Models Used to Explain the Human Factor: Explore various models that illustrate the significance of human factors in aviation safety.

Module 3: Human Factors

• Four Core Disciplines of Human Factors: Grasp the critical areas of Ergonomics and their impact on safety.

• Physiology: Understand the impact of flying on physical and mental health, including the standard atmosphere, respiration, and circulation systems.

• Possible Problems in Day-to-Day Operations: Identify physiological challenges faced by aviation personnel.

• The Brain, Its Important Parts and Functions: Learn about brain functions relevant to aviation tasks.

• Information Processing and the Memory System: Analyze how memory and information processing affect safety.

• The Sensory System, the Eye and Ear: Explore how sensory inputs influence aviation operations.

Module 4: Physiological Work Conditions

• Fatigue, Sleep, Stress, Illumination, Noise: Examine the effects of environmental and workload stressors on aviation personnel.

• Work and Task-Load: Assess the impact of task demands on human performance and safety.

Module 5: Aviation Psychology

• Communication Process: Study effective communication strategies within aviation settings.

• Leadership: Understand the role of leadership in fostering a safety culture.

• Decision Making: Explore decision-making processes and their implications for safety.

• Teamwork: Learn about the importance of teamwork in achieving safety objectives.

Module 6: System Safety

• The Components of System Safety: Delve into the elements that constitute a comprehensive safety system.

Module 7: Positive and Safety Culture

• Diverse Cultures: Understand the influence of cultural diversity on safety practices.

• Positive Culture: Promote a positive organizational culture to enhance safety outcomes.

• Safety Culture: Develop strategies to instill a safety-oriented culture within aviation organizations.

Module 8: Human Error

• Reason Model or Swiss Cheese Model: Examine models that explain the causation of human errors.

• Modern View on Human Error: Explore contemporary perspectives on human error and its management.

• Dirty Dozen: Identify common human error precursors and their impact on safety.

• Error Management: Learn techniques for managing and mitigating human errors in aviation settings.

Upon completion of this course, participants will be able to integrate human factors into safety

management processes, design safety systems, and contribute to a positive safety culture in their organizations.