

FATIGUE RISK MANAGEMENT

PILOT SPECIALTY COURSE SERIES

SUMMARY

This course is an introduction to Fatigue Risk Management for flight crews. The course covers the basic concepts of fatigue and sleep physiology, including definitions, symptoms of fatigue, error rates, circadian rhythm, sleep homeostat, blood glucose levels and glycemic index (GI).

Particular emphasis is placed on specific fatigue issues for flight operations (sleep debt, acute and chronic fatigue, time zones) and mitigation strategies (sleep schedules, controlled rest, layovers).



TARGET POPULATION

Flight Crews

Will benefit crews of all experience levels requiring initial or recurrent training.



REGULATORY COMPLIANCE*

- ICAO / EASA / FAA / Transport Canada
- Maintains compliance with IOSA standards



DELIVERY MODE

100% online, self-guided



COURSE LENGTH

1 hour

EMBRY-RIDDLE
Aeronautical University™
WORLDWIDE

OFFICE OF PROFESSIONAL EDUCATION

FATIGUE RISK MANAGEMENT

PILOT SPECIALTY COURSE SERIES

LESSON 1: Concepts: Fatigue & Sleep

- Accidents / incidents
- Fatigue Risk Management (FRM) implementation
- Symptoms of fatigue: physical, mental, emotional
- Fatigue impairment
- Alertness / error rates
- Sleep characteristics
- Sleep cycles / circadian rhythm
- Sleep homeostat

LESSON 2: Causes of Fatigue

- Internal (physiological) sources of fatigue
- Minimum required sleep / sleep debt
- Recovery sleep
- Acute fatigue
- Nutrition/fitness
- Nicotine
- Medications
- Sleep apnea
- External factors
- Eastbound / westbound flight

LESSON 3: Mitigation Strategies – General

- Sleep duration & quality
- Sleeping areas
- Distractions / noise levels
- Napping
- Nutrition
- Hydration
- Blood glucose levels / glycemic index (GI)
- Shift workers
- Selective use of caffeine

LESSON 4: Mitigation Strategies – Flight Operations

- Time zones / jet lag
- Sleep schedules
- Dehydration
- Flight levels
- Controlled rest on the flight deck
- Relief pilots
- Bunk facilities
- Circadian low points
- Layover strategies
- Commuting issues

*** REGULATORY COMPLIANCE:** This course provides the core elements of FRM training outlined in: ICAO Doc 9966, Fatigue Risk Management Systems ICAO/IATA/IFALPA implementation guide for Fatigue Risk Management Systems and FAA AC 120-103A

Operator remains responsible for obtaining approval from the regulatory authority.

EMBRY-RIDDLE
Aeronautical University™
WORLDWIDE

OFFICE OF PROFESSIONAL EDUCATION