



AORSI Instructor Guide

Course Title: Human Factors in Off-Road (HUM)

Duration: 4 Hours (classroom or online)

Audience: Off-road operators, instructors, and group leaders

Course Overview

This course focuses on human behavior, decision-making, and group dynamics in off-road operations. Emphasis is placed on preventing accidents caused by fatigue, impairment, or poor communication. Students will gain tools to recognize risk factors, apply sound judgment, and strengthen group safety.

Learning Objectives (Instructor Notes)

- Recognize the role of fatigue, alcohol, and stress in accidents. (Tip: Use interactive discussions).
- Apply safe decision-making models in high-pressure situations. (Tip: Share real-world examples).
- Establish communication protocols for groups. (Tip: Run radio/hand signal drills).
- Enhance situational awareness during off-road activities. (Tip: Encourage group role-play).

Module 1: Human Error in Off-Road – Common Causes (1 hour)

- Explain overconfidence, distraction, group pressure, misjudgment of terrain.
- Course Design Suggestion: Use case studies of accidents for analysis.
- Exercise: Write three examples of human error and prevention strategies.
- Reflection: Why is human error the most preventable cause of accidents?

Module 2: Fatigue, Alcohol, and Drug Impairment Risks (1 hour)

- Discuss fatigue, alcohol, drugs, weather, and stress impacts on judgment.
- Course Design Suggestion: Simulation exercise with impairment goggles.
- Exercise: Develop a fatigue management plan for a multi-day event.
- Reflection: How can leaders identify unfit drivers?

Module 3: Communication Systems & Protocols (1 hour)

- Teach radio etiquette, hand signals, and redundancy methods.
- Course Design Suggestion: Field drill navigating with only radios.
- Exercise: Draft communication protocol for five-vehicle group.
- Reflection: Why is redundancy important in communication?

Module 4: Situational Awareness & Leadership in Groups (1 hour)

- Cover scanning terrain, monitoring group, safe decision-making.
- Course Design Suggestion: Role-play leadership decision-making scenarios.
- Exercise: List five indicators situational awareness is declining.
- Reflection: How does leadership reduce risks in group travel?

Final Assessment

Task: Develop a group safety plan for a multi-vehicle trip including fatigue management, communication protocols, and situational awareness strategies. Complete written exam:

- What are three common causes of human error in off-road incidents?
- How does fatigue impair decision-making on the trail?
- What are two advantages of standardized communication protocols?
- How can leaders maintain situational awareness during long trips?
- Why is leadership critical in preventing group accidents?

Instructor Preparation Checklist

- Prepare accident case studies and reports.
- Gather impairment simulation tools (e.g., goggles).
- Provide radios/hand signal guides for communication drill.
- Develop role-play scenarios for leadership exercises.

Suggested Timing

- Introduction – 10 min
- Module 1 – 60 min
- Module 2 – 60 min
- Module 3 – 60 min
- Module 4 – 60 min
- Final Assessment – 30 min
- Wrap-up & Questions – 10 min