Human Factors Course Outline

- Introduction to Human Factors
- What is Human Factors Engineering (Operator Error)
  - What is Operator Error?
  - Types of Errors Operators Can Make
    - Lapse-state
    - Mistake
    - Violation
  - Five Sources of Operator Error
    - Workstation Design
    - Ergonomics
    - Training and Work Instructions
    - Maintenance of Tools / Error Proofing
    - Cognitive / Attention / Concentration
  - Workshop: Five Sources of Operator Error
- Lapse-state Error
  - Alpha State
  - Repetitive activities
  - Lack of sufficient process operator stress
- Workshop: Lapse-state Error Example
- What is a Mistake?
  - Stress-induced
  - HALT (Hungry, Angry, Late, Tired)
- Workshop: Examples of Mistakes
- Violation Errors
  - Experience influence on operator performance
  - Lessons Learned impacts
- Workshop: Examples of Violation Errors
- Operator Error Problem Resolution (Best Practices)
  - Poka Yoke
  - 5S Methodology
  - Kitting
  - Signage, Visual Management and visual aids
  - Limitation of Use
  - Labeling principles
  - Cognitive improvement
  - Training improvements